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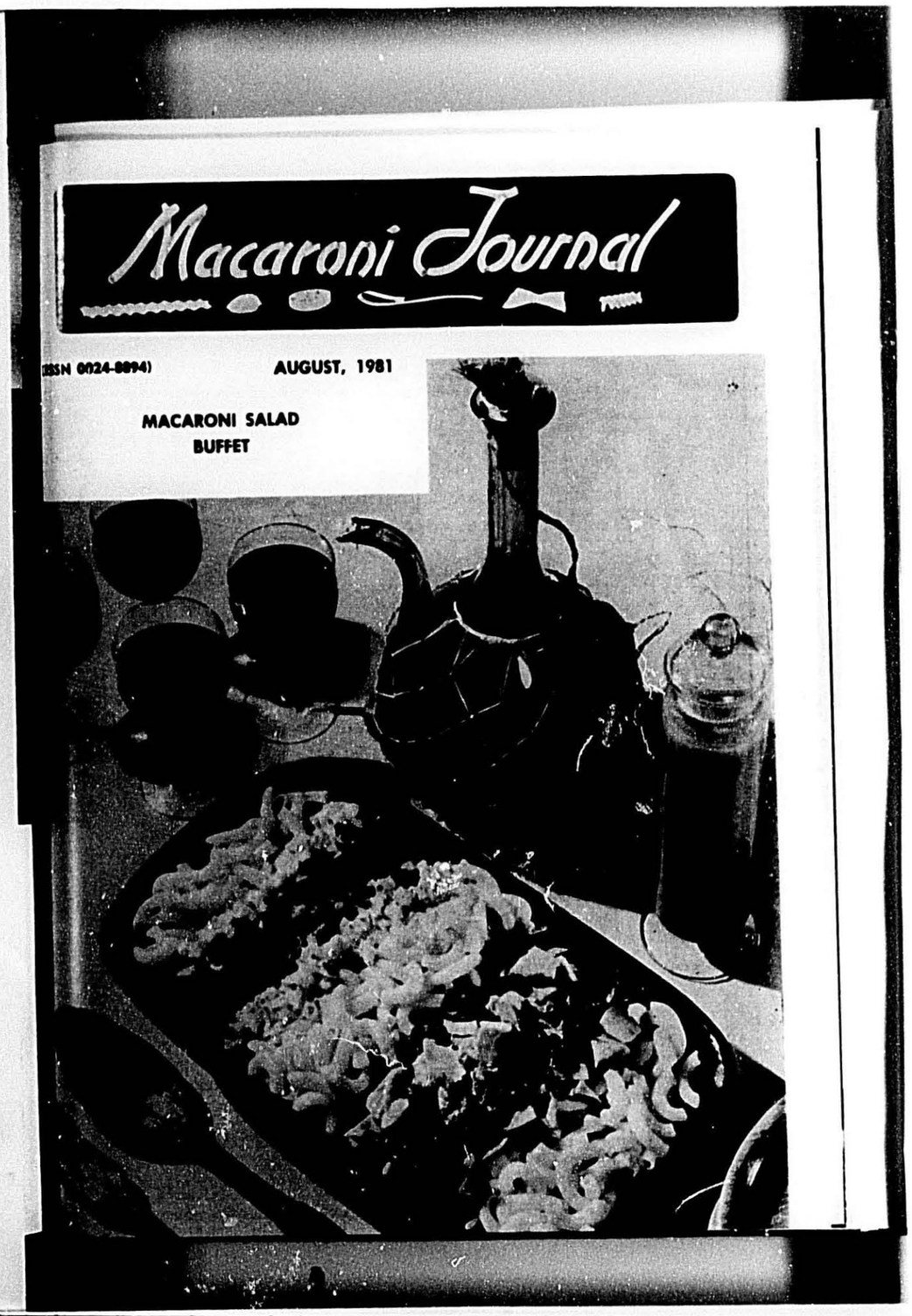
Macaroni Journal
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AUGUST, 1981
MACARONI SALAD
BUFFET

The

Officers

In This Issue:

Doctors

Quick Ways with Pasta

(Continued from page 3)

- Pan-fry sliced onion in bacon drippings until golden; add drained, cooked noodles; heat through. Serve instead of potatoes.
- Saute chicken livers, chopped green onions and sliced mushrooms in butter until tender; season with sherry and salt. Stir in cooked elbow macaroni.
- Partner cooked tubettini macaroni with drained canned red kidney beans and cooked broccoli, cut into 1-inch pieces; toss with oil and vinegar and season to taste with salt, pepper, sugar and your favorite herb.
- Create a great new lunch by combining tuna, mayonnaise, minced celery, carrot and onion. Stuff into large cooked shells and serve cold with creamy dressing.
- Add cooked bow-tie or shell macaroni to your favorite coleslaw for a different, more filling salad.
- Pair hot noodles with cottage cheese and peas for a tasty accompaniment.
- Substitute ziti macaroni for potatoes in pot roasts and stews. Add cooked, just before serving.
- Try cooked tubettini or small shell macaroni instead of rice in stewed green peppers. Just brown the ground beef and onion; stir in canned tomato sauce and cooked macaroni; fill green-pepper shells; bake.
- Stir cooked small-sized pasta into hot rice, add sauteed onions, mushrooms for a new pilaf.
- Form patties of cooked fine or medium noodles combined with shredded vegetables, beaten egg and Parmesan cheese. Pan fry in salad oil or butter until browned on both sides.
- Cut up leftover cooked spaghetti and add to the egg mixture for an extra hearty omelet.
- Prepare an envelope of white-sauce mix; add strips of chipped beef, a package of frozen mixed vegetables and toss with an 8-ounce package of cooked pasta. Just heat through for a robust one-dish meal in a hurry.
- Dilute canned cheese soup with a little milk for easy, creamy macaroni and cheese. Add chunks of frankfurters, ham or bacon, if you like, to the cooked macaroni.
- Make macaroni salad the no-fuss way. Just toss cooked macaroni with thawed frozen vegetables and a bottled creamy dressing.
- Lightly brown minced garlic in olive oil and toss with cooked spaghetti, fusilli or spaghetti twists.
- Use cooked small pasta such as stars or tubettini insead of rice or bread in stuffings for meats or poultry.
- Stuff a tomato with cooked elbow macaroni tossed with mayonnaise, diced green pepper and cooked ham.

"Now You're Cooking" Competition

Fourteen national food advertisers have signed up as patrons of **Seventeen** Magazine's third annual "Now You're Cooking" Menu Planning Competition. Twenty-eight teenage cooks were chosen as finalists, and re-created their winning meals for a panel of judges during the national finals, July 17-19, at the famed Culinary Institute of America, in Hyde Park, New York.

Contestants were asked to use at least three of the official patron products, all of which are advertised in **Seventeen**, in their menu plans. The products also will be featured in the magazine's supermarket promotion in November.

The "Now You're Cooking" contest was open to all U.S. home economics students between the ages of 13 and 19. Finalists were selected from hundred of entries by the **Seventeen** editors, who judged the menus on the basis of nutrition, cost, creativity, taste and appearance. **Seventeen** provided travel, meals, accommodations and entertainment for the finalists from around the country.

Each of the 28 finalists received t ophies and gift packages, as well as the trip, and their home economics teachers received patron gift packages, an assortment of Tuppe-ware containers, a starter set of Le Creuset cookware, and a Recipe Card Library from The Betty Crocker Kitchens.

Four national winners, one for each of the four categories, will receive a $500 savings bond and an engraved trophy, in addition to their finalist prizes. The four winners' teachers will be awarded to RIVAL Convection Oven.

The 14 official patron products of the cooking competition are:

- Chicken of the Sea Tuna (Van Camp Seafood Co.)
- Dole Canned Pineapple (Castle & Cooke Foods)
- Fleischmann's Yeast
- JELL-O Brand Gelatin
- Kikkoman Soy Sauce and Kikkoman Teriyaki Sauce
- Kraft cheese and cheese products
- Kraft mayonnaise and salad dressings
- Kraft pourable dressing
- Milk (American Dairy Association)
- PAM Non-Stick Vegetable Spray (American Home Products Corp.)
- Parkay Margarines (Kraft, Inc.)
- Rice-A-Roni (Golden Grain Macaroni Co.)
- Sweet 'N Low Brand Granulated Sugar Substitute (Cumberland Packing Corp.)
- Tender Chunk Ham, Chicken, Turkey (Geo. A. Hormel & Co.)

In Reader's Digest

"The Great American Pasta Time" by Jack Denton Scott appears in the July issue of Reader's Digest starting on page 22. "It is delicious. Healthy. Inexpensive. Low in calories and high in energy. No wonder America has gone pazzo (crazy) over pasta!"

Jack Denton Scott, with his wife Maria Luisa Scott, is the author of numerous cookbooks. His best-selling "The Complete Book of Pasta", published in 1969, has become a classic.

This issue of Reader's Digest is being sold in supermarkets with a promotional cover on the front stating "More Ways to Flatten our Stomach" which has to do with another item but which is good to be associated with.

The Beauty of Language

Fiorello LaGuardia, one of the most colorful mayors in New York's history, had a way with words — and bureaucrats. When a conscientious city lawyer took a long time explaining a complicated piece of city legislation, the mayor snapped: "Never mind the commas and semicolons. What does it do?"

World Wheat Outlook

from U.S. Department of Agriculture

Early prospects for world wheat output in 1981/82 suggest a record 463 million metric tons with a range from 443 to 483 million tons. This compares with 439 million in 1980/81 and the previous record of 447 million tons in 1978/79. This year's crop will likely exceed the 1980 near-record harvest, if generally favorable growing conditions continue. Another important factor in the outlook for larger global production is the indication of significant increases in the area planted to wheat, particularly in North America. Barring any drastic weather changes in major producing countries, world production will exceed utilization and cause world stocks to rise after 2 years of reduced levels.

Winter Wheat Good

In the Northern Hemisphere, winter wheat crops came out of dormancy in good to excellent condition because of widespread, moderate winter weather. Moisture shortages that persisted in some areas have been offset in varying degrees by spring rains. In **Western Europe**, moisture supplies have been adequate, and increased seeding should result in another large harvest in the European Community this year. Southern Europe, Italy, and the Iberian peninsula are exceptions, with indications that dry conditions may have a serious impact on the final wheat outturn. Production in **Northern Africa** has been reduced by drought, with Morocco's crop the most seriously affected. Unfavorable weather conditions reduced last fall's winter wheat seedings in Eastern **Europe**. Although the crop came through the winter with below normal winterkill, the 1981 harvest may be off significantly as spring wheat yields will not be sufficient to offset reduction in winter wheat area. USSR's winter wheat area was also down because of adverse weather last fall. A winter that was more favorable than normal should reduce the typical damage to winter wheat. Total 1981 output will be heavily dependent upon plantings and development of spring wheat. In **China**, expected increases in spring wheat seedings may compensate for lower winter wheat sowings, but total wheat area will likely be smaller than in 1980. Nevertheless, improved moisture patterns have increased earlier production prospects. Larger crops are forecast throughout other middle-Asian areas — Pakistan, Bangladesh, and India. Changing growing conditions throughout the year in India's wheat-producing areas make a record 1981 crop unlikely, but improvement from 1980 is expected. In response to strong export prospects, farmers in **Canada** are expected to expand the area sown to wheat by 8 percent. Soil moisture conditions have recovered from last year's drought, and no major problem is apparent. Overall, larger wheat production in 1981/82 may come from the United States, Canada, the Soviet Union, India, and China. The Western and Eastern European harvest may fall below 1980/81's record and near-record level.

Despite the expected record world wheat outturn, world trade should remain around 1980/81's record 93 million tons. Competition for markets is expected to be keen, but the U.S. market share may increase slightly as non-traditional exporters are unlikely to repeat last year's levels. Exports from traditional competitors — Canada, Australia, and Argentina — will be highly dependent on their 1981/82 harvest, due to low stocks in these countries at the end of 1980/81. On the import side, reduced requirements from the Soviet Union and China are likely to be offset by increases among developing countries.

1981 Wheat Program

Provisions of the 1981 wheat program were announced last August. The main decision was for no acreage set-aside requirement. Since then, legislative and USDA announcements have almost made the program final. Features of the program are:

- December legislation removed requirement that producers had to stay within their normal crop acreage (NCA) limits to qualify for 1981 program benefits. Thus, wheat farmers are now eligible for support loans, the reserve program, target price protection, and disaster program coverage on all acres seeded for harvest.
- There will be no land diversion or special grazing and hay programs for the 1981 crop.
- On March 31, USDA announced a $3.81 per bushel target price. The regular and the reserve loan rates were each raised 20 cents to $3.20 and $3.50 per bushel, respectively. This higher loan rate establishes the release price at $4.48 a bushel and the call at $5.60 for wheat already in the reserve. A decision specifying entry dates of 1981 crop wheat into the reserve will be made later.
- The Agricultural Act of 1980 waived interest charges for the first year of the 3-year farmer-owned reserve loans (the second and third year have been interest-free). Recent Administration budget proposals to Congress include a recommendation to rescind this first year waiver which would otherwise apply to 1981 reserve wheat when entry is permitted.
- Interest rates for 1981 commodity loans will be 14.5 percent, compared with the current 11.5 percent. Beginning October 1, 1981, rates may be adjusted twice yearly to more fully reflect the cost of borrowed money to the Government. Interest rates for grain storage facility and dryer loans will be identical to commodity loans and under the same adjustment procedure.

NMMA Fellowship

A $5,000 graduate fellowship in cereal chemistry and technology covering basic research of durum wheat and pasta products was awarded to Rhoda K. Kordonowy of Dickinson, N.D. on Honors Day at North Dakota State University at Fargo.

Macaroni in Thailand

Tira Siwadit, managing director of Seriwat Co. Ltd. in Bangkok reports there are two major plants and some 301 small ones in Thailand.

Long goods are most popular in half-pound and one-pound sized packages. Sales trend is slightly up.

Fluctuating durum prices are their greatest problem.

NFBA Management Conference

At the **National Food Brokers Association Management Conference** held at the Greenbrier recently C. James McNutt, President, Campbell Sales Company, said: "Food industry executives must provide leadership by setting examples in areas of enthusiasm, positive attitudes, integrity, honesty, and drive . . . all of which are necessary to increase the productivity needed to keep our companies and the food industry growing."

McNutt said that the trade allowance syndrome is not improving the skills or making professionals of salespeople. "I feel moderate allowances are an important part of a promotion package . . . but your principals and my comany cannot survive if they sell everything with a trade allowance. If you are not teaching your people to be truly professional business people and to sell on the merits of the products you represent, you may live to regret it."

In closing, McNutt stated that "if optimism springs from a demonstrated record of achievement in the past, I think we all have optimism about the future. And if we all display sincere enthusiasm for our business, our industry, and each other, we will provide the leadership needed to do our share in getting the United States back in a world leadership position."

Cost Controls

In discussing cost controls, management consultant Theodore Cohn suggested that executives zero-base all expenses, especially the "holy" ones of training, professional fees, insurance, and telephone. Identifying personnel as a major expense, he recommended spending ten times as much on selection as on training. The normal cost of personnel acquisition is 6 months salary, he noted. He urged that every techniques be used to reduce selection errors – careful job description in terms of results, detailed interviewing, including independent industrial psychological tests, where applicable, and trial working periods.

Thomas W. Wilson, Jr., Director, McKinsey & Company, discussed a number of current trends in consumer food expenditures, household size, retail sales per square foot, and the number and impact of working women today. Studies show, he said, that retail sales per square foot are going down, because of store size (too large) and number (too many). He cited figures of $4.08 per square foot in 1972, $3.03 in 1975, and $2.38 in 1979.

Increased Use of Scanning

Wilson indicated that the industry is turning to technology to help combat the no-growth economy. He outlined the increasing use of scanning, the Universal Product Code, and the coming use of computer-to-computer.

In an address on "Planning for the Future", Maurice Charlat, Senior Vice President, Marketing, California Canners and Growers, asked the audience to become part of the "information revolution as it is installed scanner by scanner in your marketplace. The best training money you can spend will be on young people who can learn all there is about the information systems our distributor friends will build."

This, he stated, is because in the final analysis, the food brokerage business is a people business. "Your coin in trade remains confidence and credibility borne of your special knowledge of your customer's business." In summary he said there are changes in consumer buying habits, specifically the trend toward cheap food, causing the biggest increase in private label and generics as a category since the early 1970's. This trend, in the face of flat tonnage trends, means the consumer is trading her purchases down. The foodservice business, with its stronger orientation to private label, clearly illustrates this problem.

Peavey Sales, Earnings Up

Peavey Company announced net earnings for the third quarter ended April 30, 1981, of $4,604,000 or 81 cents per share on sales of $204,262,000. This compares with net earnings of $4,149,00 or 74 cents per share on sales of $17,169,000 for the same period a year ago.

Net earnings for the nine months ended April 30 were $18,031,000 or $3.21 per share on sales of $626,888,000. This compares with net earnings of $16,675,000 or $2.95 per share on sales of $561,329,000 for the first nine months a year ago.

In the third quarter, the Company recorded a net gain on the disposition of the Brownberry Division and a reserve for anticipated loss on the planned disposition of U.S. Floor Systems, Inc. The net impact of these non-recurring items was to increase net earnings by nine cents per share.

Peavey Chairman and Chief Executive Officer, William G. Stocks said: "Agricultural Group earnings increased for both the third quarter and nine months as both grain merchandising and commodity brokerage volume remained reasonably strong."

Food Group Up

The Food Group had higher sales and earnings for both periods, due to a gain from the sale of Brownberry and improved operating results from Home Brands. Flour Milling earnings were below last year, reflecting reduced margins in the third quarter.

Retail Group sales improved for both the quarter and nine months. Earnings of the Group, before reflecting special charges relating to U.S. Floor Systems, were up modestly for the quarter, but slightly behind last year for the nine months. Fabric store sales and earnings were up substantially for both periods. Farm store sales were higher in both periods, but earnings declined, reflecting lower margins and higher administrative costs. Building Supplies sales and earnings continued to trail year ago levels for the nine months, but began to improve in the third quarter.

"While earnings year-to-date are ahead of last year," Stocks said "we anticipate lower earnings in the fourth quarter due to a current weaker environment for both grain merchandising and flour milling as well as the expected impact of converting fabric and building supplies inventories to a LIFO basis at July 31. As a result, we expect full year earnings to approximate those of a year ago."

Signs of Bad Times

Twelve thousand persons applied for 75 job openings advertised recently by the U.S. Social Security Administration in Baltimore. Qualified applicants were selected by lottery to fill the jobs.

Peavey to Build Grain Export Terminal On West Coast

Peavey Company's Board of Directors granted preliminary approval to construct e grain export terminal and docking facilities on the Columbia River, in the Pacific Northwest.

Peavey Chairman William G. Stocks said: "This new facility complements our existing export capacity at New Orleans and provides an opportunity to substantially increase our share of the export grain market which is projected to grow substantially in the 1980's. In addition," Stocks said, "we'll have the opportunity to be more competitive in serving the Pacific Rim countries, where higher than average grain export growth is seen for the 1980's."

Construction plans call for a complete grain handling and storage complex, including dock loading facilities and barge and rail car unloading. Design incorporates the latest "state of the art" in grain handling, safety and environmental technology.

The facility, with ship loading capacity of 100,000 bushels per hour, will handle corn from Peavey's grain origination facilities in Nebraska and wheat from Peavey grain elevators in Montana, North and South Dakota, Colorado and Nebraska.

The Company said final selection of a construction sit on the Columbia River and construction target dates will be announced in the near future.

Tony Braunagel Visits North Africa

U.S. Durum Growers Association Secretary/Treasurer Tony Braunagel, a Devils Lake area durum producer, participated in high-level United States Department of Agriculture consultations in five target countries where growing grain market potential exist.

The five countries which already take 12 million tons of U.S. wheat and feed grains annually, are Algeria, Morocco, Chile, Brazil and China. Braunagel was chosen to visit Algeria and Morocco June 12-24. These two countries together import 35 percent of the overall U.S. durum exports.

Accompanying Braunagel on the North African Grain Trade Mission was Deputy Under Secretary for International Affairs and Commodity Programs Khomas Hammer, Iowa Corn Promotion Board Chairman Howard Mueller and Charles Pence, Export Credits USDA.

The activities the team carried out included assessing quality and financial requirements of wheat imports; discussing differences between the U. S., Algerian, and Moroccan marketing and grain inspection systems; and initiating program activities designed to encourage continuing purchases of U.S. wheats.

The USDA team has also invited U.S. Wheat Associates Secretary Harrell Ridley to go to China, and former National Association of Wheat Growers President Jack Felgenhauer to visit Latin America.

Durum Market

Semolina ranged from $13.50 to $13.70, Minneapolis, in June; granular $13.35 to $15.50; fancy patent durum flour $13.10 to $14.60.

No. 1 Hard Amber Durum dropped half a dollar to range $4.30 to $6.00.

Burlington Northern's Crop Report

Development of the small grain crop in North Dakota is ahead of average. Rainfall averaging 2 to 3 inches throughout Burlington Northern territory during the latter part of May and intermittent shower activity in June has greatly improved the outlook for the crop. The new moisture caused some delays in field work and contributed to weed and disease infestation but was most welcomed, particularly in western regions of the state and eastern Montana where serious drought conditions have persisted for several months. While some areas in the Red River Valley and western Minnesota were hit by downpours, flooding damage was mostly localized. Spraying herbicides is now the major activity. A majority of the crop in the southern region is heading. Progress in other areas varies widely from just emerging to entering the boot and jointing stage. Overall, the crop looks very good.

In Montana, the spring grain crop is now in considerably better condition than two weeks earlier. General precipitation, especially in northeastern Montana, has improved the crop outlook. Crop development is comparable to the five-year average.

The North Dakota Crop & Livestock Reporting Service for mid-June says: "Additional rain over most of the state last week improved the already promising 1981 crop prospects although disease and pest problems became more prevalent." Most of the crop was rated in good condition with a fair proportion considered excellent. With virtually the entire crop planted, 4 percent was in the boot stage, 21 percent jointing and 64 percent stooling. "Desert durum" in Arizona, a fall-planted crop, was in good condition, and yields were above average.

U.S. Wheat Associates reports that Canadian wheat production is now forecast at 826.7 million bushels, up 18.4 million bushels from previous estimates and 18 percent larger than last year's crop. The dry weather throughout May was relieved by widespread showers and above normal precipitation in early June. Spring planting was generally completed ahead of normal and in time to take advantage of June's moisture as crop conditions are now rated good to very good.

Story of Milling

The Story of Flour Milling – "as of today" – has been released by the Millers National Federation. The presentation of 249 slides shown with two projectors, tape players, dissolve control runs 25 minutes. The Story of Flour Milling is told – from the classes of wheat grown to the end products made from flour. The cleaning, milling, sifting, bleaching, enrichment, testing, storage, packaging and distribution are all depicted in a way to show that the industry adds value to the wheat along with providing the highest quality flour products in history.

The price for the two-slide tray presentation is $275 for MNF members and $325 for non-members. A single tray version is available as well as a 35 mm filmstrip and cassette appropriate for professional audiences. Write Millers National Federation, 600 Maryland Avenue S.W., Washington, DC 20024.

VARIETY DEVELOPMENT AND AGRONOMIC CHARACTERISTICS OF DURUM

Dr. L. R. Joppa, Research Geneticist, North Dakota State University

Durum breeding and genetics at North Dakota State University has been the responsibility of Dr. James Quick and Dr. Leonard Joppa for the past 12 years. Recently Dr. Quick has accepted a new position with Colorado State University as the winter wheat breeder. Over the past twelve years Dr. Quick has had primary responsibility for the release of nine durum varieties which include Rolette, Ward, Rugby, Botno, Crosby, Cando, Calvin, Edmore and Vic. Cando and Calvin are semidwarf varieties and Edmore and Vic have strong gluten. These varieties occupy more than 95% of the acreage in North Dakota, South Dakota, Minnesota, and Montana. These four states in turn produce 90% or more of the U.S. production of durum wheat. Consequently, Dr. Quick has had a considerable influence on durum wheat production and quality in the United States.

North Dakota State University has hired Dr. Roy Cantrell as a replacement for Dr. Quick. Dr. Cantrell is originally from Texas but did his graduate work at the University of Minnesota. Most recently he was a corn breeder with a major seed company in southern Minnesota.

1981 Crop Prospects:

The acreage planted to durum wheat is expected to increase in 1981. Planted acreage in 1980 was 4.4 million acres. 1981 acreage should be somewhat larger.

Plant Breeding:

The improvement of crops is entirely dependent on the availability of variation. Variability in genetic terms refers to the availability of alternative genes at a particular position in the chromosomes (i.e. different alleles at a locus). The plant breeder searches within the breeding population for these differences and then recombines the available variability into new favorable combinations by crossing one line or variety with another. Crossing involves removing the male portion of the flower (anthers) in wheat and pollinating the female portion of the flower with pollen from another (male) line. He then selects within the segregating generations for the desired combination of genes or characteristics. When a new and better combination of genes is found, the seed is increased and the new variety is released to the farmer. It usually takes from 7 to 10 years from the time the original cross is made until a new variety is released.

Some of the agronomically important breeding characteristics are:

1. High yield – The farmer must get as much production as possible from his land in order to make a profit.
2. Early maturity – In general the earlier a variety is ready for harvest, the less chance the crop will succumb to hazards of production such as adverse weather.
3. Plant height – Usually the taller the plant the more likely it is to lodge (i.e. fall down) and make it difficult to harvest.
4. Strong straw – Like plant height this characteristic reduces the likelihood of lodging.
5. Herbicide tolerance – In recent years it was found that some durum wheats are more susceptible to injury by weed control chemicals than others. We now test all new varieties for tolerance to herbicides.
6. High tillering – Tillering is the number of heads produced per plant. A plant that has a large number of tillers is able to take advantage of good growing conditions better than a low tillering variety.
7. Large number of seeds/head – Dr. Quick has recently found durums which produce nearly ⅓ more seeds per head than the older types. This could mean more yield per acre. However, these types usually have smaller seeds. This could be a disadvantage because large seeds are usually associated wtih high milling yield.
8. Large seeds – The size and shape of the seed affects test weight and milling yield. There is a great deal of variability in durum wheat for this character. We should conduct additional research to determine the association between seed size and shape and the characters test weight and milling yield.
9. Drought tolerance – This is the ability of a plant to yield well in spite of lack of moisture. Recent studies indicate that some varieties do relatively better than others under low moisture conditions. The old variety Wells is thought to have some degree of drought tolerance. Cando may also have drought tolerance.
10. Resistance to shattering – If the seed falls to the soil before harvest, the amount of seed is reduced.
11. Resistance to sprouting – A considerable proportion of the North Dakota crop was sprouted in 1980. Breeding for this characteristic is apt to be especially difficult. Resistance in wheat has usually been associated with the red seed color. Of course red seeded durums are undesirable because of its effect on semolina and spaghetti color. We have begun some studies on this characteristic but progress will probably be slow.

Pest Resistance:

Disease and insects frequently cause problems for the producer and are considered a hazard of production. Some of the important diseases and insects are:

1. Stem rust – This fungus is capable of completely destroying the durum wheat crop as it did in 1953 and 1954. The disease is highly variable and new races occur periodically. The breeder is constantly searching for new sources of genetic resistance. Our current varieties are resistant to all U.S. races of this fungus.
2. Leaf rust – Caused by a fungus similar to stem rust but usually is not as severe as stem rust.

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Durum Development

(Continued from page 10)

However losses as high as 30% have been observed. All of our current varieties are resistant.

3. Leaf blights – These leaf diseases are caused by **Septoria tritici** and **Pyrenophora trichostoma.** They destroy the leaf tissue and as a result the plant produces less sugars for storage and conversion to other compounds and reduce yield. Current varieties have moderate levels of resistance.
4. Other fungi – Several other fungi can cause yield losses due to root rots, scab, etc. The new varieties Edmore and Vic are resistant to some root rot organisms.
5. Wheat stem sawfly – This insect lays its eggs in the stem of the wheat plant. The larvae tunnels down the stem to the base of the plant and cuts the stem. The stem falls over and the farmer is unable to harvest those stems. Dr. Quick has incorporated resistance to this insect into some durum wheat lines. The change to minimum tillage may increase the damage caused by this insect.
6. Cereal leaf beetle – This insect was introduced into the United States from Europe where it causes severe yield losses. The insect is presently confined to the upper midwestern U.S. However, resistance to the insect has been incorporated into some durum wheat lines. Should it become prevalent in the durum producing area, we are ready.

Quality

All new durum wheat varieties must have those characteristics which make it desirable from the standpoint of the miller, processor, and ultimately the consumer. Consequently, several seed characteristics are important:

1. Test weight – New varieties must have high test weight. Primarily because varieties bring a higher grade and higher price than low test weight varieties.
2. High protein content – While protein content itself has not been shown to be important in terms of pasta processing, the quality of protein has been shown to be important. The new 'strong gluten' durums appear to have an advantage in terms of processing loss and in producing a spaghetti with greater resistance to bite. Recent studies by Autran's laboratory in France and Bushuks laboratory in Canada indicate that the strong gluten durums almost without exception lack a gliadin polypeptide not present in the weak durums. Autran used sodium-dodecyl-sulphate polyacrylamide gel electrophoresis of gliadins and labeled one band 45. This band was found in the strong gluten durums. Another band (band 42) was found in weak gluten durums. Durum varieties with both bands are rare or non-existant. Joppa and Bietz (unpublishd) have tentatively shown that bands 42 and 45 are controlled by chromosome 1B. In fact they may be alleles (that is alternative genes at the same locus). Therefore, strong gluten would appear to be simply inherited and it should be possible to produce strong gluten varieties with relative ease. Experience in the durum breeding program appears to bear out this conclusion.

   Quick and Joppa (unpublished) have recently found a tetraploid wheat with very high protein content, that is when ordinary durums have seen protein levels of 14%, this line has 20% protein. What effect the increased protein has on processing and quality characteristics is at present unknown. One may speculate, however, that there may be a change in the relative quantities of various amino acids, which could affect the nutritional value of durum wheat. Further work on high protein wheats is being conducted.
3. Flour and spaghetti color – North Dakota durums are known throughout the world for their good yellow color. The amount of yellow color is dependent on the kind and quantity of xanthaphylls present in the seed. We currently are studying the inheritance of color. Preliminary data appears to favor a two gene model with a number of alternative alleles at each locus. Therefore, breeding for good color levels is relatively easy.
4. Firmness – or resistance to bite seems to be related to the strong gluten character and should therefore, be relatively easy to breed for.
5. Other quality characteristics – Durums are routinely tested for several other characters such as milling yield, speck count, and cooking loss. In general little is known about the genetics and breeding behavior of these characters except that they are generally associated with some of the previously discussed characteristics.
6. Bread – Cooperative studies between the Agronomy and Cereal Technology departments at North Dakota State University seem to indicate that an acceptable loaf of bread can be made from high gluten varieties such as Edmore and Vic. Of course durum wheats have been used for a long time to produce bread in the countries bordering the Mediterranean.

New Varieties

The quality of the new variety Vic was compared to that of some of the older varieties. Overall, Vic was equal to other varieties in vitreous kernels, semolina yield, semolina speck count and spaghetti color. Protein content was higher than Rugby or Calvin and spaghetti firmness was superior to Rugby and Calvin and equal to Edmore.

The acreage of Edmore is not expected to increase very much because of its low yield level. The yield of Vic is much better and acreage of this variety should increase to about 25% of the acreage in 1981, 50% in 1982 and by 1983 it should occupy about 70% of the North Dakota acreage of durum wheat. The 1980 acreage of Vic and Edmore was only 6%. Ward, Rugby, and Cando, the highest yielding varieties, occupied 70% of the acreage in 1980.

Continued on page 16)

Durum Development

(Continued from page 12)

Some 30 varieties were compared at 14 locations in North Dakota, South Dakota, Minnesota, Montana and Canada in 1980. Over these 14 tests an experimental line had the highest yield followed by Vic and Rugby. Another experimental line had the fourth highest yield and Cando was fifth. All of the experimentals in the program have high gluten strength. The data from these tests indicate that the plant breeder needs to put more emphasis on yielding ability. All of the advanced lines were satisfactory for agronomic characteristics and disease resistance, but some will have to be dropped because of various deficiencies in quality characteristics.

Overall the breeding program is making good progress and additional new varieties are expected to be released in one or two years.

Dynamic Decade For Transportation

Wrenching adjustments in transportation during the 1980's in an "interesting and dynamic period" were forecast in an address by Dickson R. Loos, Pope, Ballard & Loos, counsel for Millers' National Federation at the Federation's recent annual convention. Rail service may be substantially curtailed and a much more competitive environment will develop in the motor carrier industry. Mr. Loos suggested. More secrecy and one-on-one negotiations and more long-term contracts were predicted by Mr. Loos. He also discussed numerous potential problems in the area of transportation.

Highlights:

Rail service may be substantially curtailed in the 1980's, especially in the principle grain-growing area. Consider the following:

1 – A Conrail breakup bill is being circulated in Congress which, in effect, would result in sale of parts of the system to financially strong railroads and abandonment of other lines that none of the existing systems want.

2 – The Union Pacific and the Missouri Pacific merger would make one dominant rail system between the Southwest and the Northwest.

3 – The Southern and N. & W. merger will produce a dominant system between the Midwest and the South.

4 – The abandonment and breakup of the Rock Island system has created a shortage of rail transportation in much of the grain-growing regions of the Midwest.

5 – The bankruptcy and abandonment of major portions of the Milwaukee Railroad have reduced rail service available in the Upper Midwest and the Northwest.

As a result, rail transportation service will be curtailed in many communities where there is little traffic density and the remaining rail transportation will be largely in the hands of a relatively few large economically powerful merged systems. Thus, from the south Pacific coast to the Southwest and the Midwest the major portion of the transportation will be handled by two remaining systems, the Santa Fe and the Southern Pacific-Cotton Belt. From the north Pacific coast to the Midwest and the Southwest rail transportation will be controlled by the B.N. and the U.P. M.O.P. From the South to the Midwest and to the East rail transportation will be controlled by the Southern-N. & W. system and by the Family lines. There may be no coherent transportation system or company operation within the East.

Competition among the railroads will be substantially reduced and the ability for monopolistic pricing and discriminatory practices will be enhanced. The regulatory agencies appear to favor the enhancement of monopolistic pricing whereby captive traffic – that is, traffic that is difficult to move by other modes – will be subjected to extremely high freight rates in relation to the cost of service.

Motor Trends

The trends in the motor carrier industry are totally different. Consider:

1 – The ban on intercorporate hauling established by the old Schenly case has been removed. Now, a company operating a fleet of trucks may haul not only its own goods, but those of affiliated companies provided that the companies for whom it hauls are 100% owned by or controlled by the transporting company. Operating authority is no longer required to handle goods of 100% controlled corporate affiliates.

2 – Private fleets may be augmented by leasing equipment and drivers from the same source. This will permit private carriers to lease vehicles operated by owner-operators to supplement the private fleet when necessary. Heretofore, it has been considered that a person supplying both vehicles and drivers is a carrier performing transportation service and that the practice of obtaining drivers and carriers from the same source was a device to evade regulation and thus a violation of the Interstate Commerce Act.

3 – Operating rights for private carriers to provide a return haul has been simplified and ratified by the Motor Carrier Act of 1980. In a landmark decision, the Toto case, prior to the Motor Carrier Act of 1980, the Commission granted operating rights for return haul to a private carrier contrary to long-established prior precedent. The legality of the Commission's action has been challenged by the motor carrier industry on appeal. However, any doubts regarding the future validity of granting operating rights to private carriers has largely been removed by passage of the Motor Carrier Act of 1980.

4 – The standard governing entry into the regulated motor carrier field has been relaxed, making it easier for motor carriers to obtain territorial and commodity authority.

In the motor carrier industry, therefore, there is emerging a much more competitive environment whereby private carriers are no longer at a disadvantage in competing with regulated carriers. The monopolistic tendency created by stringent observation of a carrier's commodity and territorial operating rights has disappeared. So much so, that at last several of the larger carriers are discounting the valuation of their certificates in their financial statements and have taken losses which have been applied against current earnings for tax purposes.

What does this mean to the millers?

1 – Rail-oriented shippers, should look for ways to protect themselves. Primarily this would take the form of long-term contracts protecting

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Dynamic Decade

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your equipment supply and holding down or moderating the price of rail transportation. If you do not have sufficient leverage to negotiate the good long-term contracts, then you must assess the economic feasibility of shifting to other transportation modes or changing your distribution patterns reducing reliance on rail transportation. Realistically there is very little chance to secure relief from the Commission. Unless you have filed complaints regarding any of your rail rates, those rates which were effective as of October 1, 1980, are now conclusively presumed to be just and reasonable. The probability is that whatever relief rail shippers are able to secure from oppressive pricing practices or unavailability of equipment will lie in pursuing legal remedies to eliminate monopolistic and predatory practices under the anti-trust laws.

2 — For those of you which are motor carrier oriented, this is a time of opportunity. Many shippers operate private fleets of trucks. You now have the opportunity to exercise some ingenuity by picking up operating rights to eliminate empty backhauls. Reorganizing your trucking fleets so as to take full advantage of the intercorporate hauling which is now permitted is another way to eliminate dead-heading Instead of an expense, I know many operators of private fleets look forward to an opportunity to make a few dollars on their transportation units.

3 — Loss and damage liability will be a problem. New transportation contracts offered by carriers for transportation which has been exempted by I.C.C. order contain drastic limitations on liability. Because the law requires the carriers to offer full common carrier liability to all shippers — although the carrier may negotiate reduced liability in return for lower rates — carriers are also offering full liability contracts at rates astronomically higher than normal. I know of one instance in the field of perishable agricultural commodities where the contract offered to the shipper with full Carmack liability is approximately $1,000 per car higher than the contract with limited liability for claims. In this instance the claims experince for the shipper involved showed an average of only about $25 per car. The millers should examine their claims experience and determine whether, as an industry, there is sufficient interest to participate in the study now being conducted by the Interstate Commerce Commission and in the legislative battle which will begin probably soon after the Commission files its report. There is no question that, regardless of what the Commission finds in its report or recommends to Congress, the railroads are going to make a determined effort to limit liability for claims.

4 — The battle over the future of the Conrail system in the East has serious implications for many industries. Conrail has proposed a rationalization of service, reducing the operation to those regions where it can eventually become self-sustaining. The Department of Transportation is actively pursuing a policy of terminating Conrail and selling off portions of the system to other lines to the extent that they can be used and abandoning much of the remainder.

Whether the milling industry should take part in this legislative struggle depends on whether rail transportation is important to the industry and whether there are serious problems arising from the Department of Transportation plan. If it is important, now is the time to make your views known and to delineate those areas where, from the viewpoint of agricultural transportation, particularly grain and grain products, rail transportation should be preserved.

All things considered, the 1980's will be an extremely interesting and dynamic period in transportation. New concepts are being tried. Some are proving to be beneficial and some are doubtful. No doubt there will be many legislative changes made over the next few years as Congress tries to balance the need for healthy transportation systems and the need to move traffic economically and efficiently.

New Offices

Millers' National Federation has relocated its offices to Suite 305, 600 Maryland Ave., S.W., in Washington. Telephone number for the new office location is (202) 484-2200.

Wheat Industry Council Plans

The Wheat Industry Council, in its first year of operation, plans to spend $325,00 for nutrition education programs directed at consumers, according to the Council's budget for the fiscal year beginning July 1.

The budget, published in the June 1 **Federal Register**, details how the Council will use the estimated $1 million it will collect under the Wheat and Wheat Foods Research and Nutrition Education Order.

W.I.C.'s budget for fiscal 1982, according to the notice published by the Agricultural Marketing Service of the Department of Agriculture, includes total program expenditures of $600,000; administrative expenditures of $275,000, and $125,000 in repayment of loans for start-up costs.

The budget includes $470,000 for nutrition education programs, $325,000 directed at consumers and $145,000 for educators. The consumer portion of the program is described as follows by W.I.C.:

- "Develop and place in appropriate publications four (or more) messages: wholesomeness of ingredients used in wheat food products; similarities and differences between wheat food products; historical, cultural, and technological development of the wheat food products; economic value of wheat food products; $230,000.
- "Produce a wheat foods reference booklet for food editors on technical, nutritional, and economic values; $20,000.
- "Produce fact sheets for consumers on pasta, breakfast cereals, cakes and other sweet goods, hearth bread, white bread, crackers. Fact sheets to include historical background of products, nutritional, economic and technical information; $25,000.
- "Develop low-calorie menus and menu cards for restaurants. The nutritional value of each item to appear on the back of the card; $15,000
- "Prepare nutrition information materials for food service managers and restaurateurs; $4,000.
- "Place a medical spokesperson on national talk shows to discuss nutritional concerns on the value of wheat-based foods; $12,000.
- "Syndicate a regular nutrition release to newspapers, magazines

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Wheat Industry Council Plans

(Continued from page 16)

and commentators on wheat food products and their role in the diet; $19,000."

For Educators

Nutrition education programs for educators totaling $145,000 are described in the budget as follows:

- "Develop nutrition education materials for elementary, secondary and adult users on wheat food products. The materials will include but not be limited to leaflets, posters, teacher's guide, and good filmstrips; $125,000.
- "Disseminate education materials through professional magazines, newsletters and special mailings; $20,000.

Market Research

A $50,000 allocation for market research is outlined as follows:

"Identify the issues of greatest concern to the consumer; identify the target audiences most receptive to messages about the value and use of wheat-based foods in a well-balanced diet."

Nutrition Research

The fiscal 1982 Council budget published in **The Register** lists $60,000 in for nutrition research, as follows:

- "Select a scientific review committee of qualified experts to review the scientific literature and prepare a background paper on the relationship of wheat-based foods to his or her specialty; obesity, diabetes, coronary heart disease, dental health, and intestinal disorders. The background papers will provide not only a "state-of-the-art" of the relationship of our products to important health issues, but also identify current problems for Council-sponsored research; $38,000.
- "Publish consumer booklet(s) based on the scientific papers; $12,000.
- "Disseminate nutrition research information to media; $10,000."

Newsletter Planned

The final area of program expenditures is "industry relations and compliance," with a budget of $20,000 as follows:

- "Print summary of act stating the purpose of the Wheat Industry Council, objectives, and assessment and refund procedures to be used as supplementary information with letters to the industry; $4,000.
- "Print necessary assessment and refund forms, related materials as needed; $8,000.
- "Quarterly newsletter to industry on operation and activities of the Council. Writing and postage; $8,000."

Administrative Expense

The Council's budget for administrative expenses, totaling $275,000, includes allocations for salaries, office rent, utilities and other operational costs, as well as repayment to U.S.D.A. of referendum costs totaling $20,000, and the Department's administrative fee of $40,000.

U.S.D.A.'s notice of the W.I.C. budget points out that rules and regulations of the Wheat and Wheat Foods Research and Nutrition Education Program "require all nonexempt wheat end product manufacturers to register with the Council by June 1. Any firms not registered by June 1 must register as soon as possible. Assessments are due and payable to the Council on or before the 30th day following the end of the first reporting period and on a quarterly basis thereafter."

The notice says the budget was published in the **Federal Register** to give end product manufacturers an opportunity to resrve the right to seek refunds of assessments paid. Manufacturers wishing to reserve that right must submit such notification to the Council by registered or certified mail on or before July 31.

Advertising Permissible

The Wheat Industry Council may advertise wheat-based foods to the public as long as the messages provide knowledge of nutritional facts or economic value based on research, a Department of Agriculture official said last week following publication of the Council's first-year budget.

Acknowledging some confusion within breadstuffs on whether the Council's nutrition education authority includes advertising, W. David Spalding, marketing specialist in the Agricultural Marketing Service, which monitors Council programs, said.

"The Department has not said that the Council may not initiate advertising programs. The medium is not a problem — it's the message."

Venet Advertising Wins Awards

Venet Advertising has received four first-place honors in the 13th Annual Jersey Awards sponsored by the Advertising Club of North Jersey.

"As an agency with offices on both sides of the Hudson, we are pleased that our New Jersey facility is receiving this professional recognition," said Zal Venet, president of Venet Advertising, Union, New Jersey and, in New York City at 888 Seventh Avenue.

Venet was the only agency to receive two top honors in one category, copping first place awards for television spots produced for Prince Spaghetti and La Yogurt. The Agency's other first-place achievements were for a newspaper supplement created for Pathmark stores and advertising developed for Frank Millman Distributors.

Commenting on the awards, George Coscia, vice president in charge of Venet's New Jersey operation, said, "We are delighted by these honors and look forward to maintaining the high standards which characterize all the work we do for our many clients."

The Advertising Club of North Jersey presented the awards at a special dinner on June 12.

Venet specializes in food and supermarket advertising and has a current billing level of $34 million. The Union, New Jersey facility is located at 485 Chestnut Street.

Foremost McKesson Changes Ad Agency

Foremost-McKesson Foods Group's Grocery Products Division, a unit of Foremost-McKesson, Inc., has announced it is ending its three-year relationship with Botsford Ketchum. According to G. Clinton Merrick, vice president of the Grocery Products Division in the Foremost-McKesson Foods Group, the action is partly the result of the Group's decision to relocate Grocery Products management in New Jersey, as well as the results of potential conflicts.

"We have been very happy with Botsford Ketchum's work for us", Merrick said. "It was a difficult decision for us because of the valuable contributions they have made in the introduction of several new products, however, as we examined the future we felt potential conflicts in a number of important areas required us to find another agency, one closer to our headquarters in New Jersey." Donald G. Sullivan, Botsford Ketchum president, noted: "We have greatly enjoyed our relationship with Foremost. While we hate to lose any client, especially one as good as Foremost, we understand their situation and wish them well in the future."

Botsford Ketchum will continue working with the Foods Group over the next several months to insure an orderly transition on current projects. The agency, through its subsidiary Meyers, Muldoon & Ketchum, will continue to service the Valu-Rite Pharmacies, Inc. whic his owned by Foremost-McKesson, Inc.

Buitoni Shows Profit

Industrie Buitoni Perugina (I.B.P.), the Italian pasta and foods group, achieved earnings of L1.3 billion ($1,150,000) in the 1980 fiscal year on sales of L582 billion. In the prior year, the company had a loss of L961 million on sales of L489 billion. Losses had been steadily reduced in the preceeding several years, with the current results a marked improvement over the peak loss of L14.4 billion in 1977.

With the profits, Buitoni has declared a dividend on the common stock for the first time since 1975. The dividend rate will be L160 per share, to be accompanied by a stock dividend and new shares.

I.B.P. was formed by the merger in 1969 of Perugina, a leading chocolate manufacturer, and Buitoni, long a leader in producing pasta and other foods. Currently, Ghaith Pharaon, a leading Saudi Arabian businessman, owns about 10% of the equity shares through Interedec, a Bahamas-registered company.

Washington Meeting
Hotel Mayflower
September 17, 1981

Buitoni National Sales Manager

James T. Powers has joined Buitoni Foods Corporation as National Sales Manager, it was announced by William P. Smolka, Buitoni Vice President of Marketing and Sales.

In his position as National Sales Manager, Powers is responsible for supervising the company's direct and broker retail sales organizations throughout the United States and Puerto Rico for the sales of Buitoni sauces, pasta products, prepared and frozen foods.

Prior to joining Buitoni Foods, Powers was Director of Sales for Gioia Macaroni. His responsibilities included supervision of sales and sales promotion of the Gioia pasta and sauce lines of retail branded, private label and food service products.

Previously, Powers was with The Pillsbury Company, where over a ten-year period, he progressively rose from sales representative to Denver Regional Manager. In that capacity, he was responsible for sales of all Pillsbury grocery products, including American Beauty pasta products and the Speas apple product line, for the six intermountain state area.

James T. Powers

Buitoni Foods Corporation manufactures and markets a full line of quality Italian dry pasta products, sauces, pizzas and frozen entrees.

Birkel-Nissin

A joint venture firm, Birkel-Nissin G.m.b.H. & Co., which was formed by Birkel G. m.b.H. & Co. and Nissin Food Products Co. of Japan, has begun marketing "instant noodles" in West Germany.

The company has just started production at a plant with a capacity to produce 120,000 instant noodle meals a day. The product is being marketed under the "Minuto" brand name. The price is 87¢

Gilles Is New FGIS Adminstrator

Kenneth A. Gilles, 59, has been confirmed by the U. S. Senate as Federal Grain Inspection Service administrator, succeeding Leland E. Bartelt, who resigned last January.

Before taking the FGIS post, he was vice president for agricultural affairs for 11 years at North Dakota State University.

"I see this new job at FGIS as a great challenge," Gilles said. "By and large, FGIS has responded to its mission in a positive way. It is time now to reexamine our priorities – to see how we are performing under the realities of 1981."

Gilles graduated from John Marshall High School at Minneapolis, Minn., in 1940, studied chemistry at Augsburg College, and spent 1942-46 in the U.S. Navy.

After the war, Gilles earned a BS degree in chemical engineering at the University of Minnesota.

After taking a leave of absence as the head of Pillsbury's Special Products Section, he returned to MU to earn his Ph.D in Agricultural Biochemistry. He spent 10 years in General Mills Food and Nutrition Section before going to North Dakota State as chairman of the Cereal Technology Department.

He has been editor-in-chief of Cereal Chemistry, president of the American Assn. of Cereal Chemists, and is the author or co-author of more than 100 publications.

In the mid-60's Gilles served on a trade team promoting the sale of hard red spring and durum wheats in Europe and Asia.

Oriental Noodles

Myojo Foods of America, Inc., has built a 86-m. 50,000-sq-ft. plant at Sidney, OH. Steel frame structure with insulated metal siding. Facility produces "Oh My Goodness" Brand instant Oriental noodles. All production machinery imported from Japan, where company is headquartered. Architects/Engineers, The Austin Co. Completion: 1981.

Peavey

SALES OFFICES

WHAT'S NEW?
MACARONI DRYING AND COMMON SENSE
by Charles M. Hoskins
at the Hoskins Company Forum, 1960

Each year that we have talked about drying at this forum we have tried to add new information and we have gone deeper into the theory of drying. However, it has been our experience that most drying trouble have been caused by a disregard of the most basic fundamentals of macaroni drying practice. There will be some new information in this talk, but basically it is an attempt to get down to the fundamentals of drying which cannot be ignored if sound macaroni is to be produced. Some of the points will be discussed very briefly.

Charles M. Hoskins

Air and water. Macaroni is dried by moving water from macaroni to air. The drying rates depend on the temperature and humidity of the air. We discussed the properties of humid air in detail in our forum last year and if you wish to delve deeply into this subject we refer you to last year's speech.

Use Two Thermometers

The most common way of measuring the properties of humid air is to use wet and dry bulb thermometers. The dry bulb measures the temperature of the air. The wet bulb measures the temperature of water evaporating into the air.

Wet Bulb Depression is the dry bulb temperature minus the wet bulb temperature and it is a measure of the drying power of the air. A large depression will cause rapid drying and a small depression will cause slow drying.

Absolute Humidity is the number of pounds of water vapor per pound of air. At high temperatures air will absorb more water vapor then at low temperature. When air is holding all the water vapor which it can at a given temperature, it is said to be saturated.

Relative Humidity is the actual amount of water vapor in the air divided by the maximum amount it could hold at that temperature. If no water vapor is added to the air the relative humidity will go down when the temperature rises and the relative humidity will go up when the temperature drops. If the temperature drops far enough the air will become saturated and moisture will condense into liquid water.

If air is blown through wet macaroni, it will pick up moisture from the macaroni and evaporation of this moisture will cool the air. The wet bulb temperature will remain constant but the dry bulb temperature will drop. For example, if air at dry bulb 100°F, west bulb 90°F, depression 10°F passed through very wet macaroni, the final temperature might be dry bulb 92°F, west bulb 90°F, depression 2°F and this air would have no further drying power. If the air were recirculated and the dryer completely air tight, all of the air in the dryer would become saturated almost immediately and no drying would occur. Therefore, humid air must be exhausted and fresh air brought in if a dryer is to remove moisture from macaroni. In addition to this, heat must be added to the air to replace the heat lost by evaporation of moisture.

Summarizing the properties of air: The drying power is represented by wet bulb depression. When air passes through wet macaroni the west bulb depression is reduced by the lowering of the dry bulb temperature. The wet bulb remains constant. The drying power can be partially restored by raising the temperature of the air and completely restored by a combination of heat and fresh air.

Equilibrium Moisture of Macaroni.

If macaroni is put in a stream of air with a constant wet bulb depression, it will either lose or pick up moisture until it reaches a constant weight. At this time it wil be in equilibrium with the air and the moisture content is called the "equilibrium moisture content". The equilibrium moisture is high when the depression is low and the equilibrium moisture is low when the depresison is high.

When the moisture content is high (say 23%) a 4°F depression will cause quite rapid drying. If the moisture content of macaroni is 10% it is in equilibrium with air with a wet bulb depression of approximately 14°F. This dry macaroni will pick up moisture in air with a depression of 4°F.

The causes of Checked Macaroni.

Macaroni checks or cracks because of the expansion and contraction caused by changes in moisture content. In last year's talk, the various types of check and the causes for the various types of checks were discussed in detail. Today I will discuss only the most important kinds of check. Check is most commonly caused by too rapid drying during the period when macaroni is changing from a plastic to a brittle state. The surface is more dense than the interior and when moisture redistributes itself evenly the case hardened surface expands, the interior contracts and the macaroni checks. Except in extreme cases, **it is normal for the product to check several hours or several days after it has been removed from the dryer.** This problem of delayed check has been with the macaroni industry from the start and I am rather amazed at the number of people who have asked me about it as though it was a new thing brought on by vacuum or Teflon or sprouted wheat or some other unusual occurance in the last few years.

Another common form of check is that caused by the pick up of moisture on the surface after the product is dry. Contrary to popular misconception, a product is more susceptible to this type of check if it is very dry than if it is around 12%. Thus, a product may be resistant to check caused by high humidity when it first comes out of the dryer at 12.5% After it has been around the factory for several days it dries down to 9%. Then a humid day will cause the product to check because moisture will be picked up rapidly on the surface.

Fairly wet goods at 12.5% moisture are sometimes susceptible to check caused by cold temperatures. In this case moisture migrates from warm goods in the center of a truck or bin to cold goods at the outside of the truck or bin. The increase in moisture condensed on the surface of these goods causes them to check.

The causes of check boil down to two very simple statements:

1. If macaroni is dried too fast at any stage it is susceptible to check.
2. Macaroni can be made to check by violent changes in humidity and temperature even though it has been dried perfectly. However, it will check more easily if it has not been dried properly.

Control Instruments. Most dryers in the macaroni industry today are equipped with temperature and humidity controls. These instruments are like powerful tools which can make a fine, finished piece of work if maintained and used properly but which can do an immense amount of harm if misused or allowed to fall into disrepair. The dry bulb control instrument usually regulates a steam valve supplying steam to a high capacity steam coil. The high capacity coil is large enough to cause the macaroni to check if left on all the time and the function of the control instrument is to hold it in check so that it will supply just the correct amount of heat to achieve the maximum safe drying rate.

The wet bulb instrument controls dampers to admit fresh air and exhaust humid air and in some cases it also controls a humidifier to add moisture at times when the moisture given up by the goods is insufficient to keep the wet bulb temperature up. Again, the instrument holds the dampers and humidifiers on a leash so that ust the correct amount of humidity will be maintained in the dryer.

The Importance of Small Temperature Changes. Many people in the instrument manufacturing business are amazed at the effect of 1°F change in the depression on the macaroni drying process. Even some macaroni people do not have enough respect for these small changes in wet bulb depression. A few facets may drive home the importance of the change of 1°F to 2°F in wet bulb depression.

1. When wet goods are first put into a long goods drying room a depression of 6°F will remove twice as much moisture per hour as a depression of 4°F.
2. A depression of 3°F will remove half as much moisture per hour as a depression of 4°F. If the 3°F depression is continued for too long a time, the moisture content will remain high in the dryer far into the drying period and a great deal of moisture will have to be removed at the end of the drying cycle probably causing checking.

If instruments are precise and powerful tools, what must be done to make them do the job which you want done?

Care and Maintenance. The wet bulb instrument will record the correct temperature only if its sensitive bulb is completely surrounded by water and the velocity of air past the wet bulb is 600 feet per minute or more. If the wick becomes dirty or crusted with calcium deposits from hard water, the instrument will not record the true wet bulb temperature. If it becomes dry in whole or in part, it will register a temperature much higher than the wet bulb temperature so that dampers will open when they should be closed.

Wet Bulb Wicks. Wicks should be replaced immediately when they become dirty, slimey or hard. These wicks can be washed in a good detergent but not in soap. Soap tends to leave a greasy film, especially when used with hard water. When a wick loses its ability to soak up water quickly, it should be thrown away and replaced with a new wick.

Frequently, a wick will become dry because no water reaches the wet bulb reservoir from the water bottle. This can be caused by the accumulation of salts from hard water or flour from the macaroni. A regular system of cleaning out water lines to wet bulb panels should be maintained in every factory using wet bulb instruments. Most wet bulb instruments in our industry are equipped with water bottles. Where much trouble is caused by wicks going dry, serious consideration should be given to supplying the wick reservoir directly from a plant water supply by the use of a float device for maintaing constant water level.

All wicks should be easily accessible so that they can be examined every hour by the dryman. A dry wick can cause the entire contents of the dryer to check very rapidly because the instrument will register the dry bulb temperature and call for the dampers to be open constantly. A small door should normally be put in the side of the dryer so that the wick is easily accessible from the outside of the dryer. Where the wick is high off the ground, a permanent ladder should be installed.

The drying out of wicks is probably the most common cause of checked macaroni in plants having instruments. Therefore, a condition which causes wicks to dry out frequently should not be tolerated even if the solution costs a considerable amount of money.

Dirty Compressed Air. Air operated instruments can be made inoperative by water and oil in the compressed air lines. Instruments whose working parts are covered with a gummy deposit will have no distinct control point and may stick either open or closed causing untold damage.

Oil and water in the compressed air lines can be eliminated by a combination of an aftercooler which condenses oil and water vapor and filters which remove the condensed oil, water and dirt from the lines. We have had very good success with a

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Macaroni Drying

(Continued from page 23)

combination cooler and filter called the Condensifilter.

A further help to clean instrument air is a compressor with graphite piston rings which does not require lubrication with oil or a Nash rotary compressor with a cold water seal which condenses moisture and cleans the air.

How to Calibrate Instruments. Wear, vibration, and the passing of time sometimes cause instruments to get out of calibration so that they do not read the actual temperature in the dryer. The plant personnel can check the calibration of wet and dry bulb instruments quite easily by removing the wick from the wet bulb instrument and seeing if it reads the same temperature as the dry bulb. In long goods dryers this is done by removing the wick for one-half hour when the room is steadily under the control of the dry bulb instrument so that the temperature remains constant. A steadily controlled dry bulb temperature can be achieved only when the room is full. Care must be taken that the dampers do not open wide and check the contents of the room. Where humidifiers are present, they should also be turned off. If the wet bulb and dry bulb do not read the same temperature, the wet bulb should be adusted to agree with the dry bulb. If a set of instruments continually gets out of calibration an instrument repair man should be called in. The calibration of instruments should be checked by this method at least once a month. Some plants make this check every time a dryer is loaded.

Some instrument troubles are difficult to find and correct. Therefore, we strongly recommend that every plant which depends on control instruments for successful macaroni drying should have a regular service contract with an instrument consultant or the manufacturer of the instrument. Usually, these contracts specify that the serviceman will clean and check the calibration of the instruments three times a year.

Measurements Must Agree

Before the serviceman starts his work, you should emphasize to him that the wet and dry bulb instruments must agree exactly in the range of temperatures used in the dryers. Normally, instruments servicemen try to get a good average calibration from one end of the dial of the instrument to the other and they don't worry too much if the two instruments are a degree or two off at some part of the range. Furthermore, you should show the instrument serviceman how to work with the instruments without ruining all the macaroni in the dryer.

One thing that should be understood by both a macaroni man and the instrument serviceman is that the temperature in a dryer is not absolutely stable. The steam valve and dampers open and close on a regular cycle so that the temperature in the dryer rises and falls over one or two degrees range on a regular cycle of from 3 to 10 minutes. If you put a wet and dry bulb glass thermometer in the dryer and took only one reading you might read at the high or low point of this cycle. The instrument bulbs are large and lag behind more than the glass thermometer so that they do not always show this cycle. Therefore, if you try to compare a glass thermometer with the instruments, you should take readings every half minute for 5 or 10 minutes depending on the length of the cycle in the particular dryer concerned. Furthermore, after the instruments are calibrated by a serviceman, they should be checked against each other by the removal of the wick regardless of the method of calibration used by the serviceman. We find that calibrating in a water bath does not insure that both of the instruments will record exactly the same temperature when remounted in the dryer.

Distribution of Temperature and Air Flow. I am asked many times, "What wet bulb depression should be used in this drying unit?" It is very seldom that a direct simple answer can be given to this question because the temperature and humidity vary from one point in a dryer to another and the correct instrument reading depends on the point in the dryer where the instrument bulbs are placed.

Cooling of Air Passing Through Macaroni. In the first place, the dry bulb temperature and the depression of air drop when the air flows through the macaroni and picks up moisture. In a preliminary dryer the depression of air hitting the goods might be 15°F and the depression of the air leaving the goods might be 3°F. This air is then passed over heating coils and some of its is exhausted and replaced with fresh air. The instrument bulbs should be placed at the point where the depression is high in order to get the best control. It might take a change of 3°F or 4°F in depression of air striking the goods, to make a change of 1°F in the air leaving the goods. Therefore, control of the air leaving the goods is not very satisfactory because it might result in great variation in temperature which would not be apparent on the instruments themselves.

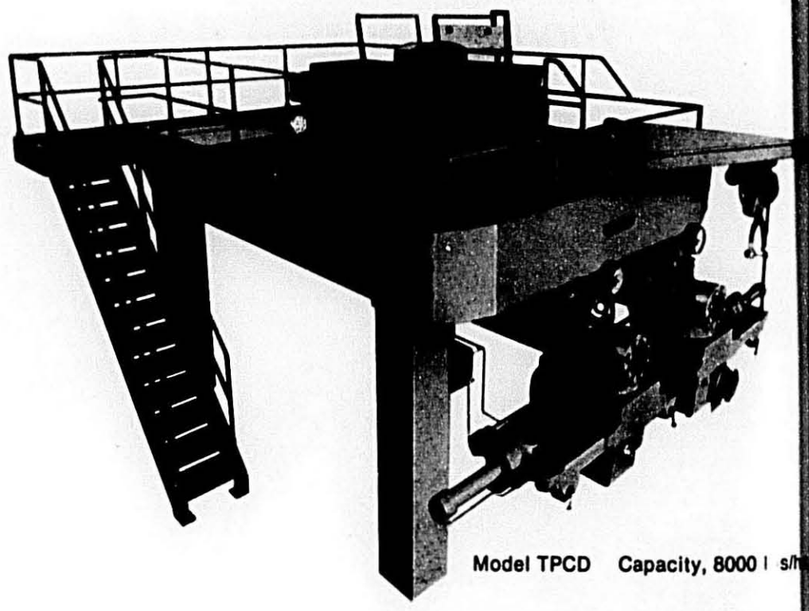
Temperature Variation Throughout Length of Dryer. Besides the unavoidable difference in temperature and humidity of air before and after it has gone through the goods there is another chance of temperature variation. On long continuous dryers such as short cut or noodle dryers or even long goods preliminary dryers, the steam usually comes in at one end of a long coil. This end of the dryer is normally hotter than the opposite end and the hot end normally has a higher depression. Furthermore, the goods entering the dryer are usually cool and wet so that there is a need for more heating near the entrance to the dryer than near the exit. The depression at one end of a dryer might be 5° F and at the other end it might be 10° or 12°F. It is best to place the instrument bulbs near the center of the dryer to obtain a temperature which is near the average temperature in the dryer.

There are long bulbs which will average the temperature of the dry bulb but we do not recommend their use. In many cases we have rolled these bulbs up into a coil and put them next to the wet bulb. We do this because it is practically impossible to check the calibration of the instruments when one of the bulbs is spread out from one end of the dryer to the other. Furthermore we are trying to control wet bulb depression and if we have a wet bulb tempera-

(Continued on page 30)

BUHLER-MIAG® EXTRUDERS.

Performance You Can Depend On!



Model TPCD Capacity, 8000 l s/h

Eight Models — Capacities from 50 to 16,000 lb s/h

Model	Lbs./hr. Capacity
TPLE (Single Screw) Lab Extruder	50- 300
TPAE (Single Screw)	660- 1,320
TPAD (Double Screw)	1,320- 2,640
TPBE (Single Screw)	1,000- 2,000
TPBD (Double Screw)	2,000- 4,000
TPCE (Single Screw)	2,000- 4,000
TPCD (Double Screw)	4,000- 8,000
TPCV (Four Screw)	8,000-16,000

We can help your profit picture, regardless of your plant size.

ilitary Design

- Structural Members completely enclosed; can't collect dust or dirt.
- Motors and Drives are open, away from product area and easy to service.
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y Supervision and Operation

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Head for round dies: 15¾" (400 mm) diameter, with hydraulic die change device (Single screw extruder).

ged Construction

- Time-Proven Design assures long, trouble-free extruder life.
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oduct Quality is What Really Counts!

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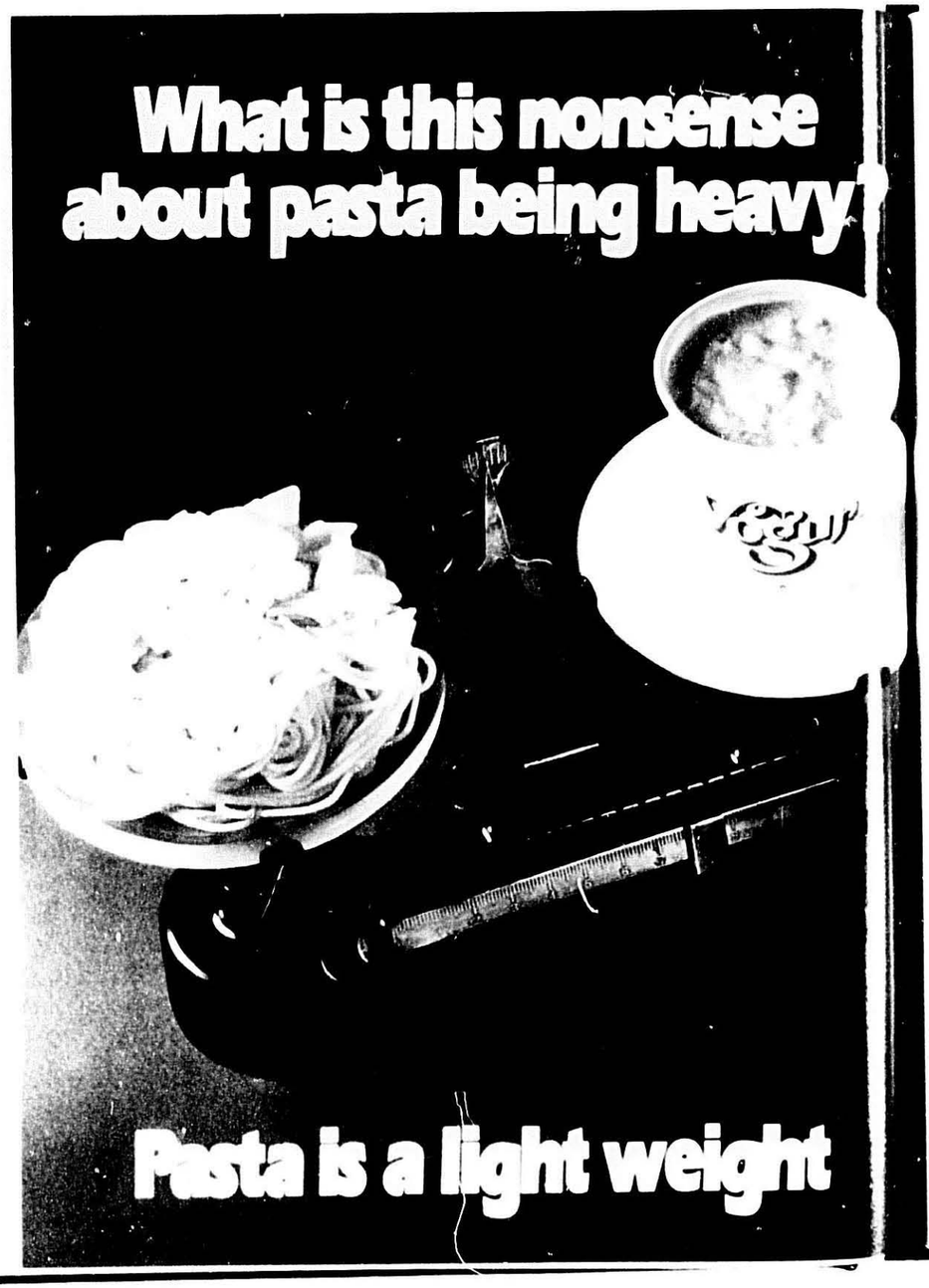

Most consumers don't realize the low caloric content of pasta products.

not

PASTA	YOGURT
MACARONI	
MACARONI & CHEESE	
NOODLES EGG	
SPAGHETTI	
SPAGHETTI TOMATO SAUCE & CHEESE	
SPAGHETTI TOMATO SAUCE & MEATBALLS	

ADM Milling supplying Breadwinners since 1902

ADM

ADM also supplies quality bakers shortening corn sweetners CO_2 soy protein and vital wheat gluten for the baking industry

Macaroni Drying

(Continued from page 24)

ture which is measured at one point and a dry bulb temperature which is an average of temperature from one end to the other, we are not actually measuring wet bulb depression. The averaging bulb is measuring the temperature of different air than the wet bulb.

Reversing Fans. There is a special problem involved in controlling long goods finishing dryers with reversing fans. If we put a wet and dry bulb control instrument in the front end of the dryer and set the depression at 4°F, the instrument will control correctly when the air is blowing toward the control instrument. In this event the depression will be 4°F at the front and probably 2°F at the back of the dryer. When the fan is reversed so that it blows toward the back of the dryer, the instrument will try to control at 4°F at the front and a depression at the back of the dryer might be as high as 8°F. Therefore, in reversing dryers it is necessary to install a duct system which will pick up air at the hot end of the dryer and blow it over the instrument bulbs.

Cycling. Another source of temperature variation is cycling of the temperature. This is especially noticeable with electrical instruments which open the steam valves wide and then close them all the way but will not control at an intermediate point. When the steam valve is open, the coil heats up rapidly. The temperature begins to rise but the instrument lags behind because it takes time for it to respond. By the time the instrument shows that the temperature has reached the control point, the actual temperature may be two or three degrees higher and it will continue to rise after the steam is shut off because the steam coil is still hot and heat must be removed from the metal of the coil. The same condition occurs when the temperature drops so that a continuous cycling is set up which may show as a jagged line covering two or three degrees on the instrument chart. The actual temperature variation would probably be 10°F if the chart showed 3°F or 4°F. In one case where a very large steam humidifier was used, I encountered a case where the temperature cycled 23°F. This cycling can be eliminated by the use of throttling control instruments such as pneumatic controllers. A pneumatic instrument will open the valve only a small amount if the temperature drops a small amount so that it does not have such a tendency to overcorrect.

A little cycling over a narrow range is not too serious in macaroni drying. However, if the cycling shows two or three degrees on the instrument, measures should be taken to correct it.

More of our clients have had real trouble with checked macaroni within the last year than within any other time in my memory. There is a tendency to blame this trouble on vacuum, Teflon or sprouted wheat, but I believe it is caused by lack of attention to the fundamentals of macaroni drying. This is partially caused by the rise of a new generation which has to learn what the old generation already knows, and it is partially caused by people who have forgotten the basic fundamentals in the rush toward new drying methods.

Most factories are now equipped with control instruments on their dryers and many drying troubles are caused by misuse of these instruments. Often the maintenance leaves much be desired. Instruments are dirty, wicks are dirty and the instruments are out of calibration. Preventive maintenance of production and packaging machinery is a good thing. Preventive maintenance of instruments is not only a good thing but is absolutely necessary. If a packaging machine breaks down, you know about it immediately and can repair it immediately. If an instrument does not operate properly, you will know about it only after the macaroni has begun to check in large quantities and I have seen this develop many times into a major disaster for a macaroni company resulting in the loss of thousands of customers.

Maintenance Rules

These maintenance rules should be followed rigidly in any factor which uses instruments on the dryers:

1. Wicks must be clean and wet.
2. The water supply to the wicks must be absolutely reliable.
3. The wet and dry bulb instruments should be calibrated at least once a month by renewing the wick as described earlier in my talk.
4. The compressed air supply to the instruments must be clean.
5. The functioning parts of the instrument should be inspected and cleaned at least three times a year and more often in factories where the atmosphere or the compressed air supply is dirty.
6. If the indicating pointer or pen does not follow the control pointer accurately because the instrument is not working right, the instrument should be adjusted as soon as possible by qualified personnel.

This last part is a joint responsibility of the maintenance and the drying department. The drying department has the responsibility for seeing that the dryers operate properly if the instruments are in good operating order and they have the responsibility for notifying the maintenance department immediately if the instruments are not working.

Pay Attention

The drying department must pay close attention to the points listed below:

1. Look at the wicks every hour to see that they are clean and wet.
2. Keep the water bottles full.
3. Look at the indicating pens and pointers to see if they agree with the control pointers. If they do not agree, something must be done. A difference of 1°F in the depression is a very serious thing during some parts of the drying cycle. There are too many factories in which the drymen write down the reading of the control pointers and the indicating pointers every hour and do nothing about it to the point where a large amount of the production is being checked. A temperature which is 1°F or 2°F off from the control point, should be as much a sign of danger as a fire siren. I am

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Macaroni Drying

(Continued from page 30)

dwelling on this point at length because there are so many people that do not take it seriously and it has caused much misery in the macaroni business.

4. The instrument pointers should be set accurately at the time shown on the drying schedule. In some cases this is done by automatic cams.

5. On batch long goods dryers, drying schedules should be worked out for each product and recorded in a permanent book. These schedules should show the method of loading the dryers, the time that the fans and controls should be turned on, the temperature settings at various times and the time that the dryers should be shut down. This should be done for time schedule controllers operated by cams as well as for manually operated control instruments.

Drying Schedules

Drying schedules should be worked out for each product in a continuous dryer showing the settings for each drying unit in the drying line. Methods of coping with shut down, gaps in the dryer and starting up should be specified.

6. On continuous dryers, standards should be set up for the amount of moisture which should be in the goods leaving each drying unit and in some cases each drying screen. These should be recorded in a permanent place. Increase or decrease in the production of the press may make it necessary to change the instrument settings on a given drying unit but the moisture leaving the dryer unit should remain constant.

These things may seem so commonplace to you that they are boring. In spite of this, you should go down the check list when you get back to your plant to see which of these very important things you are neglecting. My observation has been that almost every macaroni factory represented in this room is neglecting one or more of these points, sometimes with disastrous consequences.

Another Source of Trouble

Another source of bad trouble is the practice of speeding up the drying schedule. A few years ago, a 48-hour drying schedule for spaghetti was considered fast. This was reduced to 36 hours and then 30 hours and there are some drying schedules now as fast as 18 hours. In cases where the drying procedure or the dryer has been improved sufficiently, this speed up may be justified. However, if no basic change has been made except to increase the rate of drying, a small change in the weather or in the raw material may result in hundreds of thousands of pounds of checked product.

I would like to point out one thing about drying time which is not generally realized. In many cases the total drying time means nothing. If you have a line or short cut dryers in which the drying time is 16 hours and you do most of the drying in the first two units in 5 hours, you are drying too fast even if the goods go through all of the dryers. If you dry very slowly at the start of the 48-hour drying cycle in a long goods drying room, the center of the dryer or the back of the dryer may not begin to dry for 24 hours. It may then dry down from 21% to 14% in 3 or 4 hours causing checked goods. The fact that the 48-hour drying time is sufficient for satisfactory drying does not help the goods which were dried rapidly in four hours and were drying slowly during the rest of the drying cycle.

This all boils down to one principle. **If the drying rate is too low in any part of the drying cycle it may be too high in some other part of the drying cycle.**

Conserving Water

Water conservation should be one of the primary concerns of everyone in the food processing industry, declares the Food Processors Institute, Washington, D.C. They have prepared an audio-visual presentation, "Conserving Water," which brings home to workers the role they play in using water most effectively. For example, a counterflow use system describes how to conserve 50 percent of the total water required in a processing line.

The presentation explains how the right spray nozzles can conserve water; how clogged screens can waste this precious resource; how flow restriction devices can help how a small leak can make thousands of gallons disappear each day.

This excellent program, designed for in-plant instruction by management personnel, is available as a kit for $90 each.

Stouffer's Name V.P. Of Operations

C. Wayne Partin has been named vice president of operations for Stouffer (Frozen) Foods, subsidiary of The Stouffer Corporation, C. Alan MacDonald, president of Stouffer Foods announced.

In his new capacity, effective immediately, Partin will coordinate and direct all the operating and manufacturing operations of Stouffer Foods and will continue to be located in the food manufacturer's headquarters in Solon, Ohio, outside Cleveland.

Partin joined Souffer Foods in October, 1977, as manager of the company's Solon frozen prepared foods plant. He was promoted to director of manufacturing operations in 1980. In the food industry since March, 1969, Partin began his career with Campbell Soups where he started as personnel manager at the Sumter, South Carolina, Plant. He later was an assistant manager and manager at Campbell's Fayetteville, Arkansas, Plant and manager at the Tecumseh, Nebraska, Plant.

Born in Sumter, S.C., Partin received his early education there and later was graduated with a Bachelor of Science degree in Business Administration from the University of South Carolina in Columbia. He is a director of the Solon Chamber of Commerce and a member of the American Frozen Food Institute.

Partin is a U.S. Air Force veteran and lives with his wife and their two children in Aurora, Ohio, near Cleveland.

Stouffer Foods, with its operating and sales headquarters in Solon, is the nation's leading producer of premium quality frozen prepared foods.

Egg Outlook

From U.S. Dept. of Agriculture

Higher costs of feed and other input relative to product prices caught poultry and egg producers in a cost/price squeeze. However, rising pork prices and the continued strong export demand for poultry products may bolster prices in the second half of the year. These developments, coupled with lower feed costs if large crops materialize, may permit producers to recoup some losses during the last half of 1981. Also, a possible tax cut could provide more strength to meat prices, depending on its impact on personal income.

Following negative returns for most of last year, egg producers added fewer pullets to laying flocks. Also, continued losses during January-March have not encouraged producers to increase replacement pullets. Producers culled fewer hens than last year, and the rate of lay remained near a year earlier. With fewer replacements, producers could expand output only be deleting culling, but the rate of lay for old hens would be less, possibly pulling down the rate for all hens. So, the potential for expanded production seems limited during the rest of the year.

Egg Production to Stay Flat

Egg production in the first 4 months of 1981 was 1 percent lower than in 1980. The decline was due to one less production day this year, with last year being a leap year. The rate of lay has remained very near the previous year's high, as producers continue to cull nonproductive hens from the flocks. The percentage of hens with molt completed is high relative to last year, but this percentage has declined as prices slipped during the first quarter. On January 1, 1 percent of the flock with molt complete hit an alltime high of 18 percent in response to profitable operations in fourth-quarter 1980. On May 1, the percent of the flock with molt complete was down to 15.2.

Layer numbers on May 1 were slightly above year earlier level. However, numbers will likely decline, because producers will increase cull hen slaughter after they delayed culling to meet the Easter demand for extra eggs. The laying flock during the second and third quarters is expected to remain near a year-earlier levels. The number of replacement pullets hatched has been below a year earlier every month since September 1979. In April, egg-type chick hatch was 2 percent below April 1980. However, replacements and reduced culling of old hens have been adequate to maintain flocks.

The potential for expanded egg production is limited to the delayed culling of present layers, because replacement pullets are fewer. Even if culling was delayed, output would not expand proportionally because the rate of lay would likely be lower for old hens. Thus, output for the rest of 1981 will likly remain near last year.

Egg Prices Above 1980

Egg prices in the rest of 1981 will likely rise from second-quarter lows. The usual seasonal increase in price may be strengthened further by increasing prices for other high protein foods. Prices for cartoned large Grade A eggs in New York may average 75 to 80 cents a dozen in second half of 1981, compared with 74 cents a year earlier. More eggs will be needed for hatching use.

Cold Storage Lower but Breaking Use Up

Stocks of frozen egg products on May 1 totaled 22.1 million pounds, compared with 25.9 million a year earlier. Because of high interest rates and the increasing use of fresh products, stocks were at an alltime low on this date.

The movement of shell eggs to breaking plant during January-March was up 4.6 million dozen from the 173 million dozen a year earlier. Weekly reports show that April breakings were also above a year ago.

Egg Products

June price range from U.S. Department of Agriculture.

Central States Nest Run $11.70 to $14.40.

Southeast Nest run $10.80 to $14.40

Frozen Whole 42¢ to 48¢.

Frozen Whites 23¢ to 30¢.

Dried Whole $1.73 to $1.95.

Dried Yolks $1.88 to $2.06.

U.S.D.A. Egg Review

The nation's laying flocks produced 5.82 billion eggs during May, 1981, up fractionally from a year earlier, according to the Crop Reporting Board. Production included about 5.21 billion for table or commercial type eggs and 612 million for hatching eggs. The total number of layers for May averaged 282 million, compared with 280 million a year earlier. The 282 million layers consisted of 250 million layers for table eggs and 31.8 million layers for hatchery type eggs. May egg production per 100 layers for the total laying flock was 2065 compared with 2070 a year ago.

All layers on June 1, 1981 totaled 281 million, 1% more than the 280 million a year earlier, but 1.19 million fewer than the 282 million on May 1, 1981. The 281 million layers consisted of 250 million for table eggs and 31.3 million layers for hatchery eggs. Rate of lay on June 1 for all layers averaged 66.3 eggs per 100 layers, compared with 66.7 a year earlier and 67.0 on May 1, 1981.

Egg-type chicks hatched during May 1981 totaled 44.3 million, a 7% decline from a year ago. Eggs in incubators totaled 37.1 million on June 1, 1981, 7% below a year ago, and 8% below the May 1, 1981 level.

Coming Events

Durum Harvest Tour
August 10-14, 1981

NMMA Washington Meeting
Hotel Mayflower
September 17, 1981

International Durum Forum
Pastaville II, Minot, N.D.
November 9-16, 1981

NMMA Winter Meeting
The Breakers Hotel
Palm Beach, Florida
Feb. 28-March 4, 1982

IPACK-IMA Exhibition
Milan Fairgrounds, Italy
March 19-24, 1982

production **25** tons per d

length **55** feet

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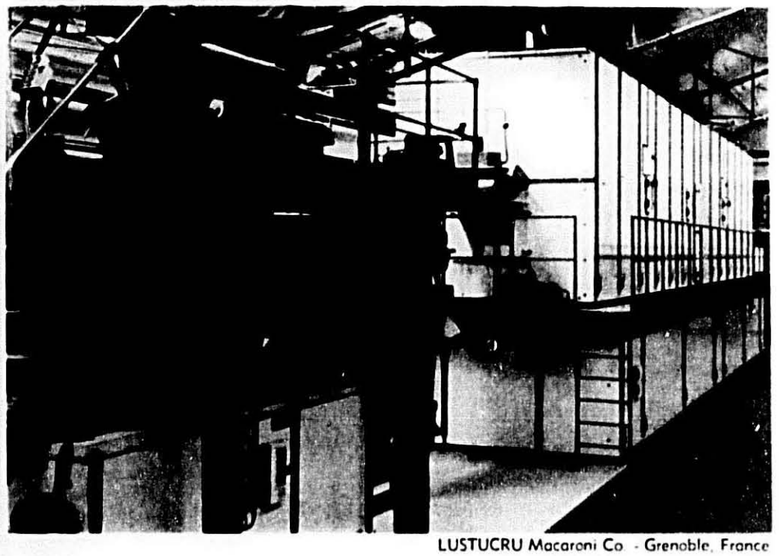
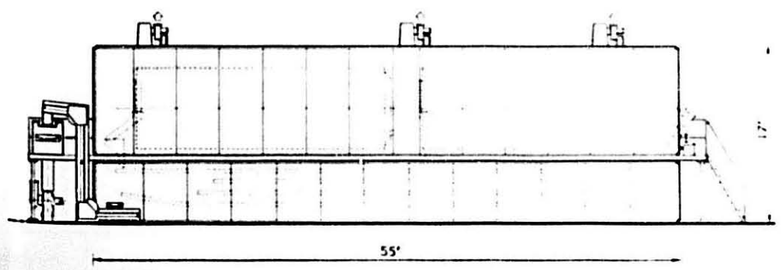


LUSTUCRU Macaroni Co. - Grenoble, France

***BRAIBANTI** has in operation a new high temperature drying line for a wide variety of short pasta shapes:*

- **Cobra 1000 press with two 16" diameter die holders**
- **Shaker type TM/1000 AT**
- **2 Metal rotary dryers model Romet 24/8**
- **1 Finish dryer type Teless ATR/17/4**
- **1 Cooling shaker**



Buitoni Helps Fuel Round-the-World Expedition

Centuries ago, Magellan was the first to circumnavigate the earth "the easy way." Today, Buitoni is taking part in the first circumnavigation of the world "the hard way."

Along with other major companies worldwide, Buitoni is co-sponsoring the Transglobe Expedition, a three-year, 52,000-mile journey launched in September 1979, to successfully circle the globe transversing both the north and south poles for the first time. Part of Buitoni's contribution to the exploration is a supply of the company's high-protein pasta products to the 40 member crew.

His Royal Highness Prince Charles of Britain is patron to the expedition, which is led by Sir Ranulph Fiennes, a 36 year old former British military officer and explorer.

While the Transglobe Expedition's 213-foot research and supply ship Benjamin Bowring was docked in Los Angeles in May, the public was invited to view an exhibition featuring various aspects and documentation of the voyage.

Shown visiting the Buitoni booth at the Los Angeles exhibit are Robert B. Horne, Buitoni West Coast Sales Manager, and Sir Ranulph Fiennes.

Robert B. Horne — Sir Ranulph Fiennes

Aseeco Appointments

Several management appointments by the Board of Directors of Aseeco Corporation were announced by Vaughn Gregor, President.

Peter V. Kenford was promoted to Senior Vice President with primary responsibility for sales and engineering functions. Since joining Aseeco in 1970 as Sales Manager, Kenford has served as General Sales Manager and previously held the position of Vice President - Sales.

Vice Presidential appointments announced were Audrey Gregor, Secretary-Treasurer; Gordon Hyatt, Sales; and Robert Babian, Operations.

Other management appointments were Armen Hovannesian, Engineering Manager; Matt Hattevossian, Purchasing Agent; Mike Kennedy, Plants' Manager; and Robert Hudson, Manager, Quality Assurance and Product Development.

At Buhler-Miag

Walter Stehrenberger, formerly Division Manager for the Macaroni Machinery Division, has accepted the position as Production Manager of the Minneapolis plant manufacturing facilities.

Duane Ahrens, Assistant Division Manager, will be Acting Division Manager. Gary Carlson is the Sales Engineer for the Macaroni Division. Gus Boller is Group Vice President in charge of activities in the Macaroni Division.

Peter V. Kenford

Aseeco Corporation maintains corporate headquarters at 8857 West Olympic Boulevard, Beverly Hills, California. They design and produce equipment for storage, conveying and distribution of bulk materials.

Transportation Study

North Dakota, Montana, and New York will each receive $60,000 from the U.S. Department of Agriculture to help finance planning and evaluating demonstration projects aimed at improving rural and agricultural transportation. If the studies prove the projects are economically feasible, the states will then work with affected users to help develop cooperative or other non-profit organizations to provide needed services.

Gas Consumption Down

The Highway Users Federation reports that both motor-fuel consumption and highway travel have decreased for the second consecutive year.

Fuel use in 1980 was 6 percent below 1979 levels. The 1.5 trillion miles logged by the nation's 159 million vehicles were 1 percent under the level for the previous year.

International Multifoods

International Multifoods announced record sales and improved earnings for the first quarter ended May 31, 1981.

Net earnings for the first quarter of fiscal 1982 were up 70 percent, at $3.9 million or 48 cents per common

(Continued on page 38)

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International Multifoods

(Continued from page 36)

share on sales of $279.4 million. This compares to restated earnings of $2.3 million or 28 cents per common share on sales of $235.1 million for the same period a year ago.

Sales advanced in all four of the company's market segments for an overall improvement of 19 percent. Unit volume increased approximately four percent.

In reporting the results to Multifoods' annual meeting of shareholders in Minneapolis, President Darrell Runke stressed that, "Much of our success can be traced to continuing strong performances in the consumer market in Canada and Venezuela, a healthier industrial market worldwide, and by our joint venture in Mexico."

Excellent Consumer Gains

Excellent gains in the consumer market segment reflects outstanding results for corn flour in Venezuela, bolstered by strengthening markets in Canada and the U.S.

Led by durum, bakery and export flour, the industrial segment rebounded from last year's disappointing levels.

Earnings were lower for the away-from-home eating segment due to a decline in Mister Donut initial franchise fees, because of fewer store openings, and a major new advertising commitment in the United States. Restaurant customer counts, which had been declining, are showing encouraging signs of improvement.

Earnings in the agriculture segment declined due principally to market conditions in the feed industry in the U.S. and Canada. A change in these trends is expected to improve performance in the fall. Earnings performance in Venezuela and Mexico continued to be favorable.

William G. Phillips, chairman and chief executive officer, pointed out that "the exceptional percentage gains in first quarter earnings were measured against a weak first quarter last year."

"The outlook for another year of improvement is good and is strengthened by this very encouraging start," Phillips said.

Jack Kemp

At Washington Meeting

Jack Kemp, co-author of the Kemp-Roth Bill will be featured speaker at the NMMA annual Washington Meeting at the Mayflower Hotel, September 17. Plan to attend now for industry update and meetings with your Congressmen and Senators.

Field Selling Costs Up

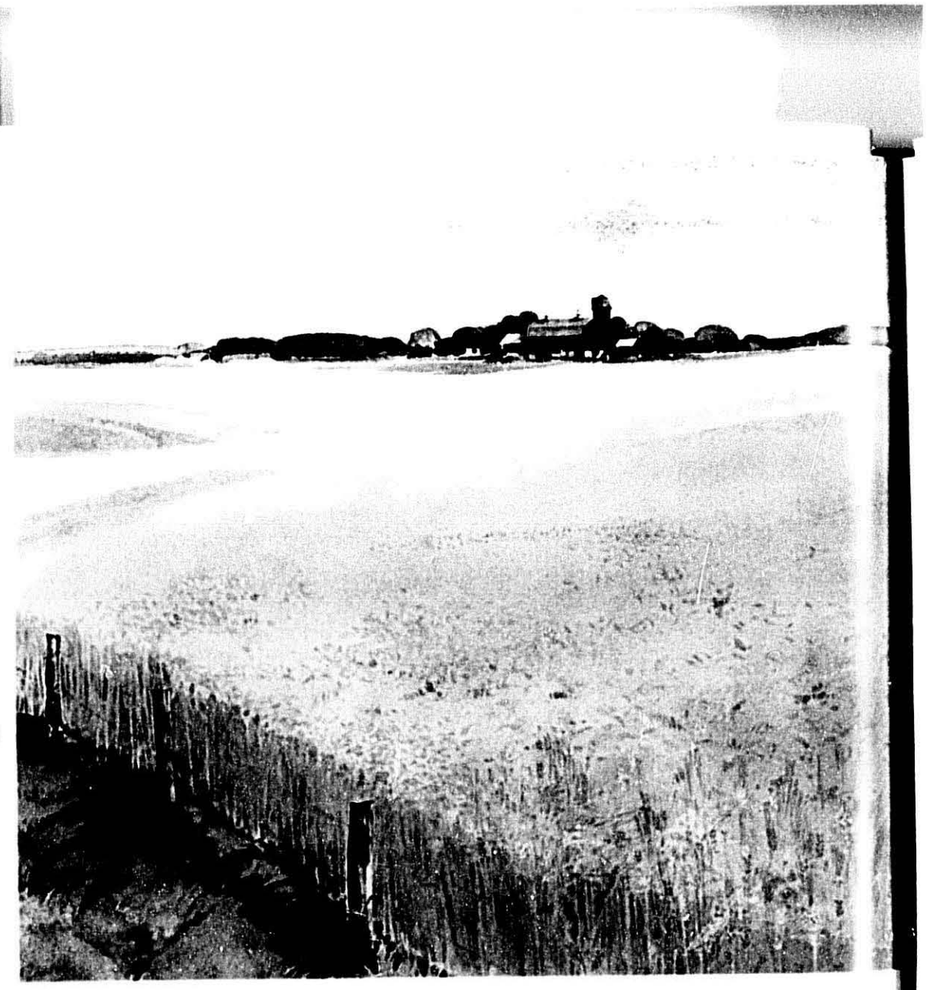
With industrial selling costs in some firms running as high as $150 per field sales call, and an average of 4.3 calls required to close a sale, an increasing number of U.S. firms are turning to their customer service departments to help offset these runaway costs. In fact, some three quarters of the firms covered in a recent survey indicate that their customer service departments are engaged in one or more types of inside selling at costs substantially below those incurred in field sales.

The survey was conducted by **Customer Service Newsletter** and reported in their June 15 issue. Although patterns of inside selling vary from company to company and from industry to industry, most firms now recognize inside selling as a principal means of retaining the business and good will of smaller accounts where frequent field sales contact can't be justified. Many firms also take the position that an existing customer service department performing sales functions with marginal or secondary accounts can both turn a profit and also release field salespersons to concentrate on large accounts where personal participation is essential.

While 29 percent of the firms surveyed use their customer service departments for direct telephone sales calls to customers, **Customer Service Newsletter** found that several times as many were engaging in such "indirect" approaches as order upgrading, calling to sell discontinued items or seconds, calling to sell weekly "specials," contacting customers in advance of price increases, notifying customers of pool truck shipments to their area and the like.

Most of the companies with inside selling programs in their customer service departments report positive results. They recognize that there are some areas of potential conflict with field sales in the area of commission and compensation, but they also say that these can be avoided.

Customer Service Newsletter is published by Marketing Publications Incorporated, National Press Building, Washington, D.C. 20045.



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