THE MACARONI JOURNAL

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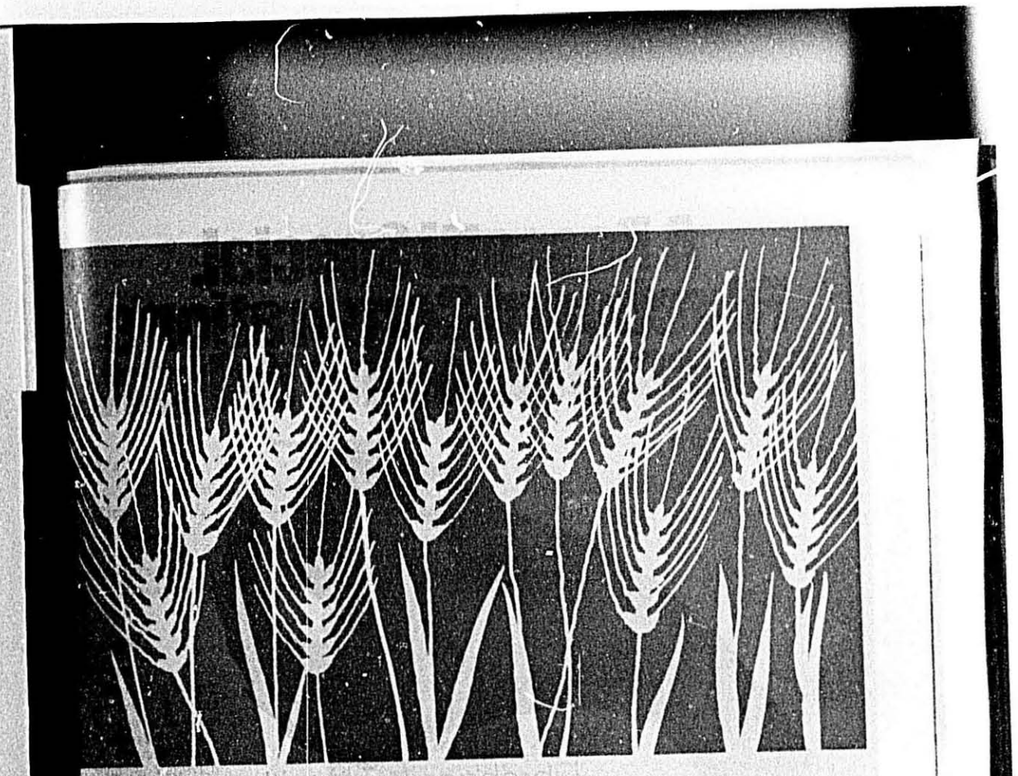
June, 1975



JUNE, 1975
Vol. 57 No. 2

Macaroni Journal

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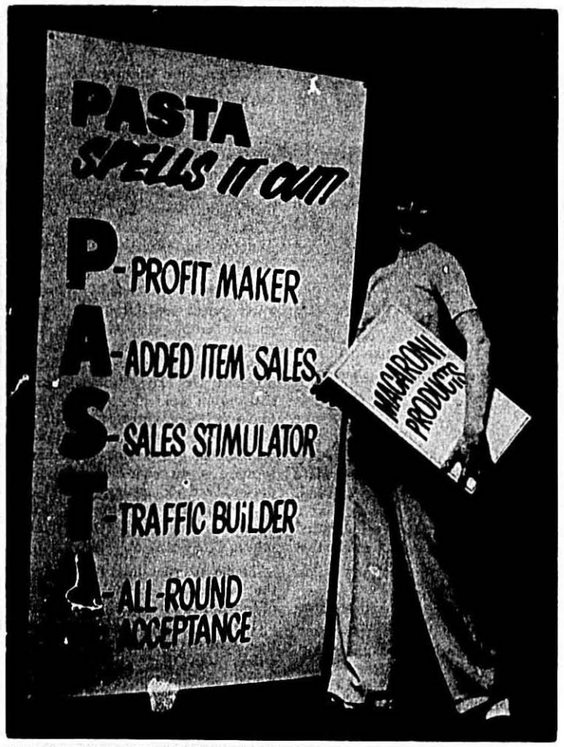

PASTA SPELLS IT OUT—With a teacher like Kathleen Francour, it's easy to learn that there are many reasons for promoting pasta in food stores. Pasta delivers an average gross margin of 19.1 percent. Pasta sparks related item movement. Pasta stimulates sales and traffic in the grocery, meat, produce and dairy departments. And lastly, pasta is a popular product with 1.7 billion pounds annually consumed all over America with new consumption records being established every year. All are good reasons to promote pasta this summer both in salads and in other quick and easy warm-weather meals.

...s Notebook:

...was high praise for the ...on Durum Wheat and Good ...turing Practices held at Noth ... State University, Fargo, in ...il.

...program was well planned and ...l out with a jammed packed ...a of valuable material but with ...ent time for questions, discus- ... discussion and evaluation.

...e cooperation of the faculty, the staff at the North Dakota Mill, and the personnel of the U.S. Durum Growers Association and North Dakota Wheat Commission made it a memorable meeting for the members of the National Macaroni Manufacturers Association.

Much of the material in this issue came from the seminar.

It is interesting to note in the article on Macaroni Around the World, page 24, that the high price of durum has led to blending almost everywhere and this has taken the winds out of the sails of upward consumption trends.

In view with a flattening of pasta consumption it is more important than ever to promote. National Macaroni Institute publicity meets with a favorable press with cost conscious consumers and advertising to grocers stresses the advantages mentioned above. Pasta spells it out so push pasta and its sales message.

Seminar on Durum Wheat and GoodManufacturing Practices

Dr. Kenneth A. Gilles
Vice President for Agriculture

Orville J. Banasik
In Charge of Arrangements

The National Macaroni Manufacturers Association, North Dakota State University, North Dakota State Mill and Elevators, and North Dakota State Wheat Commission collaborated in mid-April to put on a Seminar that was most instructive to the large delegation who attended.

An ice-breaker social and registration was held Sunday evening.

Bright and early Monday morning, buses took the group to the University campus, to the Memorial Union, where Dr. Jack F. Carter chaired the morning session on Durum Variety Improvement.

Plant Breeding Team

Dr. Kenneth A. Gilles, Vice President for Agriculture for the University, declared that they have the largest wheat breeding team in America at that institution. Members of the team including Dr. James S. Quick, plant breeder, Dr. Leonard R. Joppa, agronomist, Dr. G. D. Statler, pathologist, and Dr. David C. Ebeltoft, technologist, described what was involved in developing new varieties of durum. It takes eight to ten years to develop a new variety and the results that they are looking for include quality, disease resistance (particularly to rust), and the building of seed stocks Following their development of varieties, they are tested for commercial quality by the Cereal Technology Department and this work was reported on by Dr. William C. Shuey.

Economic Considerations

The afternoon session was chaired by Fred Taylor and covered economic considerations from quality to economics and the possibility of establishing a combination mill and pasta plant in North Dakota to make straight-line products and ship them by the carload across the country. Dr. Don Anderson and Ron Fraase gave the latter report.

Dr. Hugh McDonald predicted lower prices for durum during the coming crop year with the price spread between durum and hard red spring to range between $1.25-$1.50 a bushel. Dr. David Cobia indicated that durum looks like the best return to North Dakota growers in the North Central area next to barley, but pointed out that growers have a decision to make in choosing between barley, durum, hard red spring, flax and oats or putting land into summer fallow in determining their best economic return.

Traffic Attorney John Finsness gave the background on the development of freight rates by the Interstate Commerce Commission in 1926, observing that it was concluded that "wheat is wheat" and that wheat and flour would take the same rates across the country to protect interior mills. North Dakota being in the geographical center of the country has the highest rates of moving their grain to any place in the country. In commenting on the competition from trucks to rails he noted that 10% of durum moves by truck to Minneapolis, less than the 38% hard red spring and 4% barley. However, to Duluth, because of exports, 62% of the durum moves by truck, 58% hard red spring and 75% barley.

Tour of Facilities

Following the afternoon presentations, the delegates toured the Cereal Technology Laboratory and then the Greenhouses to observe how plant breeding and rust studies are conducted.

The North Dakota State University did an outstanding job of condensing a great amount of material into a brief period of time and presenting it in an interesting manner. A pleasant social hour and dinner was held in the ev ing at the Holiday Inn of Fargo, w many wives of the faculty memb attending. Dr. Gilles and Orville Banasik most effectively coordina all of the arrangements and plann for the day.

Mill Trip

The following morning, Presid Sam Kuhl of North Dakota Mill, host to a plant tour of their facil led by personnel of the mill and f lowed with a luncheon at the W ward Ho Motel. Ben Hennessey g a slide presentation on milling pro dure, George Odegaard on buy grain, and the Grand Forks Cham of Commerce urged macaroni ma facturers to consider their city as industrial site.

Good Manufacturing

The session on Good Manu ac ing Practices was chaired by I au Vermylen and James J. Winsto n. T outline used for the round-table d cussion appears on page 36.

Dr. John H. Nelson of the Pea Company Technical Center said t the problem of microbiological ex inations is of equal concern to mills and volunteered to enlist the s port of the American Association Cereal Chemists to standardize m odology and sampling. It was poin out in the discussions that each p must develop its own specificati

(Continued on page

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Seminar

(Continued from page 4)

To do otherwise might invoke the displeasure of the Federal Trade Commission. The need for developing specifications and maintaining records becomes more important as governmental regulators issue more and more detailed requirements.

Reference materials utilized at the Seminar are available from the office of the National Macaroni Manufacturers Association.

Through The Mill

Wheat, like many products of nature, has an outer protective coating. Milling removes this husk, separating outer bran from inner endosperm and divides it according to granulation and purity. Special equipment is needed to mill the hard durum wheat into semolina, granular or flour best suited for macaroni.

Growers deliver wheat to country elevators. Quantities are shipped by rail or truck for storage in huge bins or elevators. On order, durum is transferred to mills. The wheat is thoroughly scoured and cleaned. Samples are analyzed and tested to check milling and final product quality. Durum is prized for its amber color and for the wheaty, almost nutlike flavor it gives to spaghetti, macaroni or egg noodles in the finished dish. Here is the step-by-step milling operation:

Product Control: Chemists inspects and classify wheat, blending is often done at this point.

Separator: Reciprocating screens remove stones, sticks and other course and fine materials.

Aspirator: Air currents remove lighter impurities.

Disc Separator: Barley, oats, cockle and other foreign materials are removed.

Scourer: Beaters in screen cylinder scour off impurities and roughage.

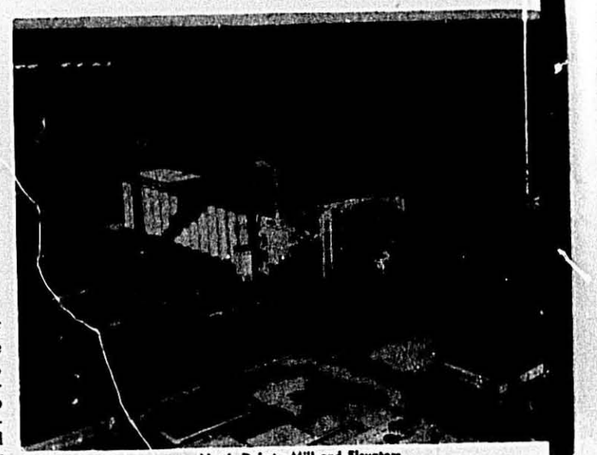
Magnetic Separator: All metallic objects stay here.

Washer-Stoner: High speed rotors circulate wheat and water—stones are removed.

Tempering: Water toughens outer bran coats for easier separation.

Blending: Types of wheat are blended to make specific flours.

Entoleter: Impact machine destroys and removes unsound wheat.



North Dakota Mill and Elevators

Grinding Bins—First Break: Corrugated rolls break wheat into coarse particles.

To a series of purifiers, rolls and sifters, broken wheat is sifted through successive screens of increasing fineness. A percentage of Semolina is taken from each purifier to final product.

Air currents and sieves removes bran and classify particles (or middlings). Bran is the outer husk. Shorts are the next layer to it. Durum clear flour is the first by-product taken off and wheat germ is extracted. Semolina is the final product of breaking of the middlings.

Enriching: Thiamine, niacin, riboflavin and food iron are added.

The milled product is sacked for macaroni manufacturers use or delivered to bulk trucks or railcars for delivery to the macaroni processing plant. 72 percent of the wheat is bran-free semolina, granular or durum flour and 28 percent is made into by-products. When you rub semolina between your fingers it feels coarse like sugar or salt.

Quality begins with wheat itself and must be maintained until the final product reaches consumers. Made from durum, macaroni foods hold their shape and firm texture when cooked.

Late Planting

Spring wheat seeding intentions North Dakota and Minnesota sho 12 per cent and 15 per cent decr in acreage respectively compared 1974. Cool, wet weather and poor ing conditions have delayed the of spring field work and seedin small grain in the Twin Cities Re Spring planting is two weeks than normal. Warm, sunny we will be needed for seeding to bec general during the first few da May in southern areas of N Dakota. Activity in northern will be delayed until mid-May. though precipitation, falling in form of snow and rain during A has delayed field work, the ad moisture will be beneficial in g the new crop off to a good star the exception of low lying a the Red Valley, snow melted gr ally because of cool temperatu run-offs have been minimal.

Durum Stocks Lowest Since 1962

Department of Agriculture's s in all positions report placed d holdings as of April 1 at 43.6 m bus., 14% below the same da year and smallest for the date 1962. Farm holdings, at 32.1 m bus., were 7% below last year, off-farm stocks showed a 30% crease.

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the durum people

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Research Is Key To Food Production

Agricultural research must be increased "to meet the critical food situation facing our country and the world today," Ventura County Agricultural Commissioner Leslie D. Haworth told the Council of California Growers.

He said some politicians and environmental groups "have promoted the idea that agricultural research was making farmers wealthy at the expense of the general public. Nothing could be farther from the truth."

Research is one of the three most important issues facing agriculture this year, Haworth said.

Another is finding a way for growers to make enough money with their crops so they can at least make a modest profit. The third, Haworth said, "is powerful government becoming involved in agriculture and not having the ability to differentiate between fact and fantasy."

Haworth said he had written a letter to Assemblyman John E. Thurman, chairman of the California Assembly Committee on Agriculture, making his concerns known.

Research Original College Role

On the subject of research, Haworth said that one of the original roles for the state's land grant colleges was agricultural research. This role should be enhanced not reduced, he said.

Prices paid to the grower depend on supply and demand, causing the grower to "keep producing a commodity until it is no longer profitable." Then the grower changes his crops.

"Unfortunately, the price paid for farm products by the consumer does not completely reflect this price variation."

Government Involvement Grows

Haworth said the government has become more and more involved in agriculture regulations. "I refer to the Environmental Protection Agency, which can produce a regulation that can upset what has been well-established over the past 25 years."

California established outstanding safety records in the use of insecticides, herbicides and fertilizers long before the federal government stepped in and began issuing regulations.

"Specifically, I'm concerned about the threat to withdraw the registration of Chlordane, which," he said, "is essential for ant control. Ant control is essential to successful biological control of other serious pests. Without biological control, the amount of pesticides used in crop production would have to be double."

Genetic Engineering and Durum Quality

by Dr. L. R. Joppa, Agronomist, N.D.S.U

North Dakota durum wheat varieties are generally regarded as having good quality characteristics. They have high test weight, large kernel size, are usually vitreous, have moderate protein content, very high pigment levels, low lipoxidase and have generally good cooking quality. Perhaps their outstanding characteristic is the high pigment levels present in the semolina. For example, durum wheat from the United States is exported to Italy for the express purpose of increasing the color of Italian spaghetti.

Gluten Strength

The protein content and gluten strength of U.S. durums has received only moderate attention in our breeding program. Canada has given gluten strength a high priority in their variety development. Some Italian processors and manufactures believe that gluten strength is associated with al dente, (ie., resistance of the cooked spaghetti to biting). Because of this interest in gluten strength, we have recently given protein content, amino-acid balance, and especially gluten strength increased emphasis in our research program.

There are a number of ways in which we could approach the problem of increasing the gluten strength of durum wheat. Among these is what I call genetic engineering. Each living organism can be compared with a factory capable of producing a number of parts or products. To produce one of these parts or products (for example, gluten) the factory needs a set of instructions or blueprints, a machine such as a computer or trained personnel and the actual machinery. In a durum wheat plant the instructions are contained in the chromosomes (which are analogous to a co puter tape deck). The nuclei of plant cells are analogous to comp ute capable of reading the tape dec interpreting their instructions. The tire plant is analogous to a larg tory capable of producing numer parts which are then assembled a finished product. A durum wh seed is such a product of the dur plant.

To produce a durum seed w characteristics different from those ready available, we need to cha the instructions on the tape decks some cases it is only necessary change one instruction in one t deck. In other cases we may w to change several instructions or p haps even an entire tape deck.

If we equate chromosomes w tape decks then we could say t durum wheat has 28 tape decks cell. Spring wheat on the other h has 42 tape decks. Thus spring wh has 14 tape decks more than dur wheat. Further, we know that 28 t decks of durum are similar to 28 t decks of spring wheat. We might s pect then that the 14 extra tape de in spring wheat have considerable do with its quality characteristi Since spring wheat has very str gluten perhaps we can trade sc of these tape decks around and prove the gluten strength of dur wheat. This is what we have tempted to do in our studies here Fargo.

Using Chinese Spring

By using appropriate genetic en neering techniques it has been p sible to take two of the tape de from the spring wheat variety C hin Spring and add them to the dur wheat variety Langdon. Thes tape decks or chromosomes are ferred to as 1D. We already k from othe studies that chrom so 1D of Chinese Spring has a l effect on gluten strength. Som recent studies by Bietz, Shepherd Wall at the Northern Regional search Laboratory at Peoria, Illi have indicated that among o effects, chromosome 1D has the structions for the production of high molecular weight glutenin p peptides.

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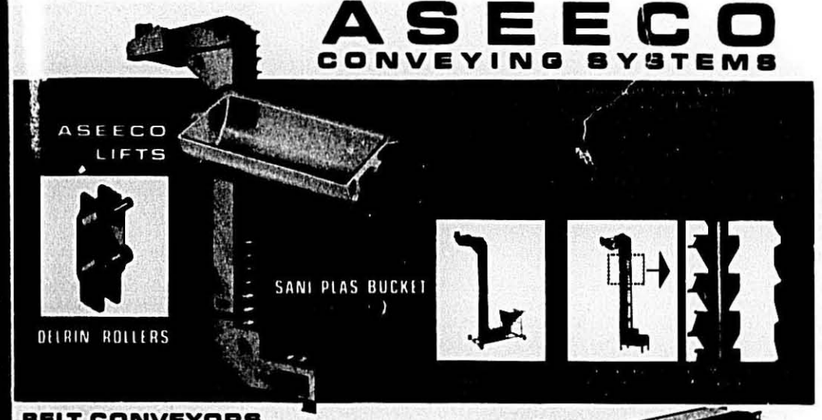

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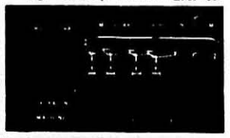

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Genetic Engineering

(Continued from page 8)

This past winter we studied the gluten strength of durum wheat with wheat added to it. It was immediately obvious that this semolina had greatly increased gluten strength. From these studies it can be concluded that we can greatly increase the gluten strength of durum wheat by adding instructions from spring wheat. However, it should be remembered that since each tape deck or chromosome contains a large number of instructions, we have also added instructions for some other characteristics along with gluten strength. Some of these instructions have an adverse effect on our durum plant. Consequently, we need to transfer the strong gluten instructions from the spring wheat tape decks (or chromosomes) to the durum wheat tape decks. This requires some additional work, but should be possible using some of our newly developed genetic engineering techniques.

Our objective is to increase the gluten strength of durum wheat and hopefully increase the resistance to bite. It is possible that this gluten strength will not improve durum wheat quality characteristics. It is also possible that this change may make durum wheat flour more suitable for bread, other baked products, breakfast cereals, and/or other uses. A great deal of work remains to be done, and we are proceeding as rapidly as time and funds will allow.

In conclusion I should like to point out that these same techniques can be used to engineer other chemical and biological changes in the durum wheat plant. For example, it may be possible to produce durum varieties in which the proteins have a better amino acid balance, and a higher protein efficiency ratio. We may be able to change the shape of the kernel, the kinds of starch it contains and other characteristics both morphological and chemical. The possibilities are many and so are our opportunities.

Butz's Fish Story

Secretary of Agriculture Earl L. Butz, who recently drew criticism for retelling a joke he heard while attending the Rome Food Conference, tells a Chinese proverb to illustrate his views on U.S. food aid to poorer nations.

"If you give a man a fish," he says, "you feed him for a day. If you teach a man to fish, you feed him for life.

"Our job today is to teach them to fish—to help feed themselves."

Research on Durum Wheat Diseases

by Glen D. Statler
and
James D. Miller,
Plant Pathology, N.D.S.U.

Durum wheat is one of the most important crops in North Dakota. Plant diseases can reduce the yield and even quality of this durum wheat crop. Plant pathologists at North Dakota State University work in cooperation with breeders and growers to avoid losses caused by plant diseases. Some of the most important diseases of durum are stem and leaf rust, seedling blight, root and crown rot, tan spot and other foliar diseases, and head blights, including scab and black point.

Stem Rust

Stem rust is possibly the most disastrous disease of durum wheat because a severe epidemic can destroy the crop. Both quality and quantity of the grain are affected. The history of stem rust races indicates that the rust fungus is not static but changes and races or strains within the pathogen appear which attack the resistance bred into durum varieties. Thus, continual research involving the inheritance of resistance and pathogenicity and the detection of new genes for resistance in the host and virulence in the pathogen are the objectives in the United States Department of Agriculture stem rust research program at Fargo. The North Dakota varieties, such as Crosby, Botno and Rugby, have shown a high level of resistance to the North American stem rust races and to diverse stem rust races at many locations in the world.

Leaf Rust

Leaf rust nurseries are planted at several North Dakota locations each year to evaluate the relative resistance of the commonly grown durum varieties, breeders lines and rust differentials to the natural **Puccinia recondita** population. Selected cultures are identified and used to evaluate breeders lines in greenhouse tests. Many durum varieties appear to rust only late in the season or late in plant development. Since the damage (yield loss) due to leaf rust is relative to the amount and duration of infection, we have used disease progress studies and spray trials to evaluate slow rusting or generalized resistance in durum wheat.

The inheritance of resistance to leaf rust incited by **P. recondita** was investigated in Leeds durum wheat. Leeds was crossed to the rust susceptible cultivar D6618 for the genetic analysis. All F_1 plants of reciprocal crosses were susceptible to race 1, **recondita**. The segregation ratio of approximately 15 susceptible to 1 resistant F_2 plants suggested that resistance was conditioned by two recessive genes and this was confirmed when 281 F_3 families satisfactorily fit a 2-factor 7:4:4:1 ratio.

Blight

The seedling blight, root and crown rot complex is another important disease of wheat in North Dakota. We inoculated 3 durum and 3 hard red spring wheat varieties with **Fusarium roseum** and **Helminthosporium sativum** both alone and in combination. Although **H. sativum** is isolated more often in the field, **F. roseum** combinations of the two fungi caused more severe damage in the greenhouse than did **H. sativum**. The hard red spring wheat varieties tested were more resistant to seedling blight and crown rot than the durum varieties used.

Black Point

Black point is a disease causing dark discoloration of the embryo region of wheat. Although species of **Alternaria** and **Fusarium** have been reported to cause the disease, **H. sativum** is the primary inciting organism. This disease can cause specks in semolina if the disease progresses to the crease of the kernel.

The inheritance of resistance to black point incited by **H. sativum** was investigated in Leeds durum wheat. The green berry test was developed and used to test segregating populations of reciprocal Leeds x Coteau Ball crosses for reaction to **H. sativum**. A single recessive gene pair controlling resistance to **H. sativum** was indicated, but disease ratings of progeny from the crosses did not fit expected Mendelian ratios for a single recessive gene. Analyses of variance were used to determine differences in disease ratings within varieties, but

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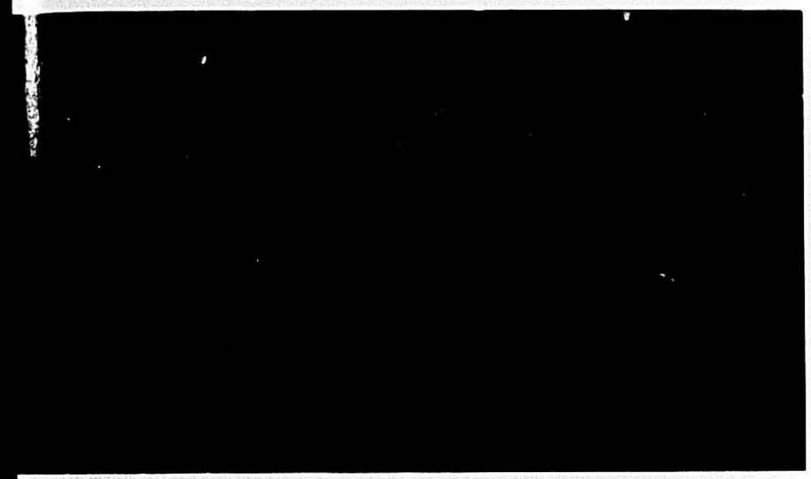

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Durum Wheat Diseases

(Continued from page 10)

tween varieties and within segregating progeny of reciprocal crosses.

The genetic variance of F_2 plants, F_3 families, BC-F_1 plants and BC-F_2 families were significantly greater than the genetic variance within the parents. Disease ratings equal to the resistant parent, Leeds, were recovered in all segregating populations indicating that resistance to black point was heritable and could be selected in segregating populations.

Disease research, in plant pathology is dedicated toward the proposition of helping breeders and growers develop and produce sufficient quantities of high quality durum wheat.

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Durum Outlook

by Hugh J. McDonald,
Extension Economist, N.D.S.U.

Many of the same uncertainties that existed a year ago in the durum situation and outlook exists again today. These uncertainties are numerous but some of the more pressing ones are in the areas of price prospects, producers' actual 1975 plantings and weather. The usual amount of uncertainty also exists about the domestic and export demand for durum and durum products.

According to the latest USDA Wheat situation, carryover stocks of Durum on July 1, 1975, will be about 31 million bushels (see Table 1). This is almost the same carryover that existed a year earlier. This carryover and that of last year are the smallest since 1968 when carryover stocks were 24 million bushels.

Before going into the 1975 situation and outlook, it is necessary to make a few assumptions. They are:

1. The U.S. will produce a record 1975 wheat crop.
2. World weather and crop conditions will be improved from last year.
3. Total demand for U.S. wheat will be relatively stable.
4. No further deterioration of general economic conditions.
5. 1975-76 demand for Durum will remain near the present level.

What are 1975 Durum production possibilities? By using some varying acreage and yield estimates, we can develop a range of possibilities that could realistically contain the real outcome.

Alternative One

A planted acreage of 4.3 million acres (105 percent of 1974) and a U.S. average yield of 28 bushels per acre. This combination would produce about a 120 million bushel Durum crop. When coupled with the 31 million bushel carryover, it provides for about a 150 million bushel total supply for 1975-76. Assuming a stable demand, carryover stocks will increase sharply to the 75 million bushel range on June 30, 1976 (see Table 2).

How realistic is this production estimate? The 4.3 million acres are what producers reported in the March intentions report that they planned to plant this year. The intentions report has always been a fairly accurate indicator of what producers will plant.

A yield of 28 bushels per acre is possible but it would require conditions approaching ideal.

This alternative then provides the top side of the range of possibilities of Durum production for 1975.

Alternative Two

A planted acreage of 4.1 million acres (100 percent of 1974) and an average yield of 22 bushels per acre. This would produce a crop of about 90 million bushels. When added to the 31 million bushel carryover, total supply would be about 122 million bushels. Again, asssuming a stable demand, carryover stocks increase to the 45 million bushel range under this alternative (see Table 2).

Is this alternative possible? A 22 bushel yield could be achieved with weather and crop conditions being something less than normal but be than last year. An acreage as low last year seems unrealistic in l gh the wide premium of Durum o Hard Red Spring. Adverse weat conditions similar to last year co hold acreage down however. T assuming weather and growing co tions somewhat improved fro year, this alternative could be jud to be at the bottom side of the ra of possibilities.

Alternative Three

A planted acreage of 4.2 mill acres (103 percent of 1974) and average yield of 25 bushels per a This combination would yield abo 105 million bushel crop and a t supply of about 137 million bush Assuming the same demand as in other alternatives, carryover sto increase to the 60 million bushel ra by June 30, 1976 (see Table 2).

Is this alternative possible? A bushel yield is within the realm possibilities assuming normal weat and growing conditions. The red tion in acreage from the March tentions report to 103 percent of year is predicated on the possibi that enough Durum producers

(Continued on page

TABLE 1 Durum Situation 1973-74 Projec 1974-

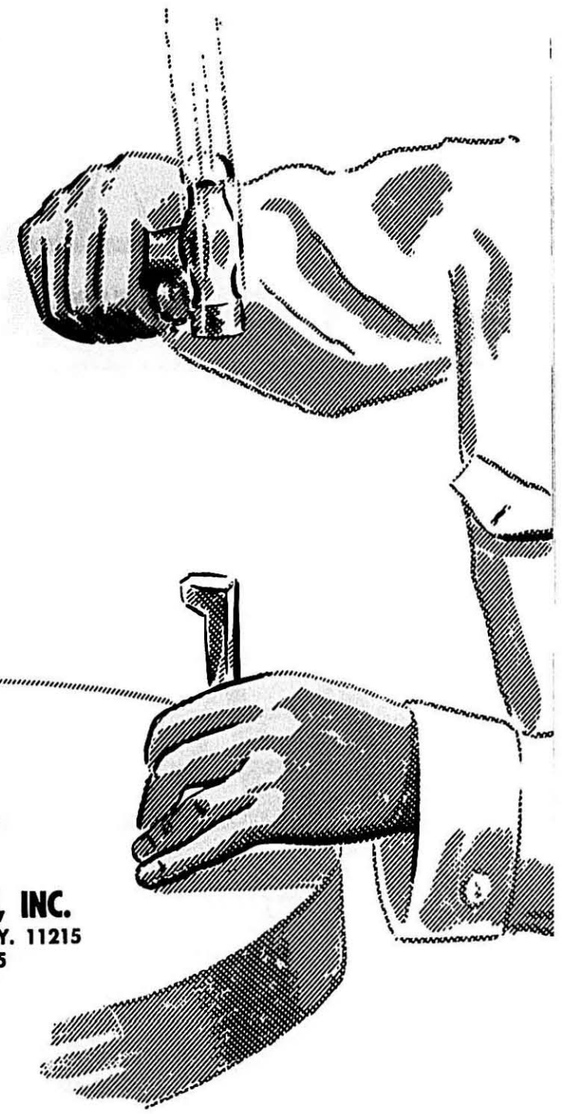
Supply (million bushels)		
Carryover	37	28
Production	79	19
Imports	1	1
Total Supply	117	108
Use		
Domestic	47	42
Export	42	35
Total Use	89	77
Ending Carryover	28	31

Source: *Wheat Situation*, February, 197

TABLE 2 Durum Situation, 97

(million bushels)	Alterna-tive One	Alterna-tive Two	Al erna-ive Thre
Supply			
Carryover	31	31	31
Production	120[1]	90[2]	105
Imports	1	1	1
Total Supply	152	122	137
Use			
Domestic	42	42	42
Export	35	35	35
Total Use	77	77	77
Ending Carryover	75	45	60

[1] 4.3 million acres x 28 bushels per acre
[2] 4.1 million acres x 22 bushels per acre
[3] 4.2 million acres x 25 bushels per acre



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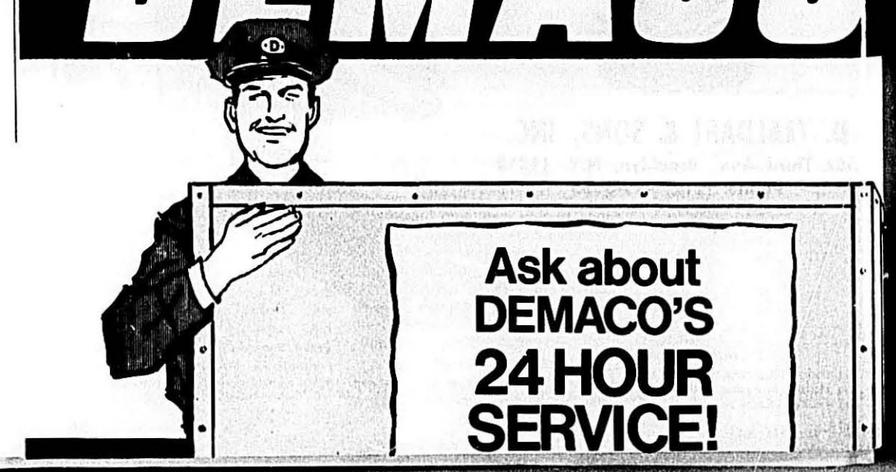

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Durum Outlook

(Continued from page 12)

be concerned about a sharp buildup in stocks and depressed price to shift some acreage out of Durum to other crops. Acreage reductions from the March intentions report must be viewed as moderate as long as producers are looking at more than a dollar premium over HRS.

There are numerous other factors that can influence these alternatives to an unknown degree such as reduced use of fertilizer and use of marginal land; but of the three alternatives, alternative three seems like the most realistic as a starting point in projecting the 1975 Durum situation. Under this alternative, prices could be in the $3.50-$4.00 range this fall at harvest time.

One price strengthening factor will be producers' orderly marketing. Durum producers have developed a reputation over the years for orderly marketing. This year storage will be no problem so we should expect continued orderly marketing by Durum producers.

1975 gives every evidence of being another interesting year in every aspect of the pasta industry. I am very pleased to be able to have the opportunity to visit with you and attempt to put into perspective some of the thoughts running through the minds of durum producers at this time, just prior to the beginning of our planting season.

Our organization has just completed a series of area meetings in the production area from northeastern Montana to the western edge of the River Valley in North Dakota. These meetings were very well attended and there was intense interest in new available varieties and especially in the market outlook for the coming year.

Since mid-1972 the durum industry, as well as all segments of the agricultural complex, have been in an entirely new "ball game". In fact, we are in an entirely different ball park—the rules have been changed, the umpires certainly have changed, the managers have had to alter their strategy and the players, who in this instance are the durum producers, semolina millers and processors, have for the most part benefitted from the change. However, it was inevitable that there would be confusion in this transition, and, I am sorry to say, that in a few instances our signals have gotten mixed. It is essential, in a small industry such as ours, that we get these signals straightened out and make sure that we are all playing on the same team.

Pricing Structure

Possibly the most dramatic impact in this period has been in the pricing structure. For several years—with the exceptions for drought and rust epidemics—the price of durum was largely determined by farm loan rates, wheat certificate payments and export subsidies. Since none of these is now a factor, the new phenomenon of world price has entered the picture. Nothing brings this out more succinctly than the fact that in this past marketing year, the average price received by the Canadian farmer was $6.44 per bushel while the average on-farm price in North Dakota for the same period was an almost indentical $6.33. French farmers were receiving the equivalent of about $7.00 per bushel and a similar amount prevailed in the Italian market.

Another factor has been the abandonment of acreage controls and the subsequent shifting of durum acreage west and north into areas where it is apparent most satisfactorily adopted, and the Northwest one-fourth of North Dakota is now the predominant durum producing area of the United States. It has also resulted in the largest seeded acreage of durum in 1974 in recent memory, almost 4,000,000 as compared to about 2,000,000 acres in 1970.

No CCC Stocks

The disappearance of Commodity Credit stocks has also been a result of the recent "new look" and has altered immeasurably the inventory holdings of durum. With the relatively high raw material costs, extremely high interest rates and a volatile ma
ket, millers and pasta processors ali
have been reluctant to book inve
tories as they have traditionally do
in the past. Consequently, an almo
hand-to-mouth buying program h
prevailed instead of bookings f
supplies for a month or more. Th
result has been to position the phy
cal inventory in only one place—t
storage bins of the farm producer. I
my mind, this is the logical place f
it to be stored, but I sometimes fe
that the fact that the producer is wi
ing to store the commodity free
charge, absorb the interest charg
and take the market risks is not fu
understood or appreciated in all se
ments of the trade.

Orderly Marketing

One of the basic goals of the U
Durum Growers Association has be
the orderly marketing of durum.
would not hazard a guess as to wh
the official figure for April 1 dur
stocks on farms will be but I am po
tive that it will come as a shock
anyone who feels that producer bi
are bulging with last year's crop. W
must keep in mind that we are o
seven months into the marketing
last year's crop, with five months
go until new crop. In a rather exte
sive survey of the heart of the dur
production area recently, it was di
cult to find a country elevator ope
tor who felt that his area has mo
than 35-40 percent of last year's cr
in the country. This to me would i
dicate orderly marketing on the p
of the producer and I fail to see how
can be interpreted as "stubborn ho
ing".

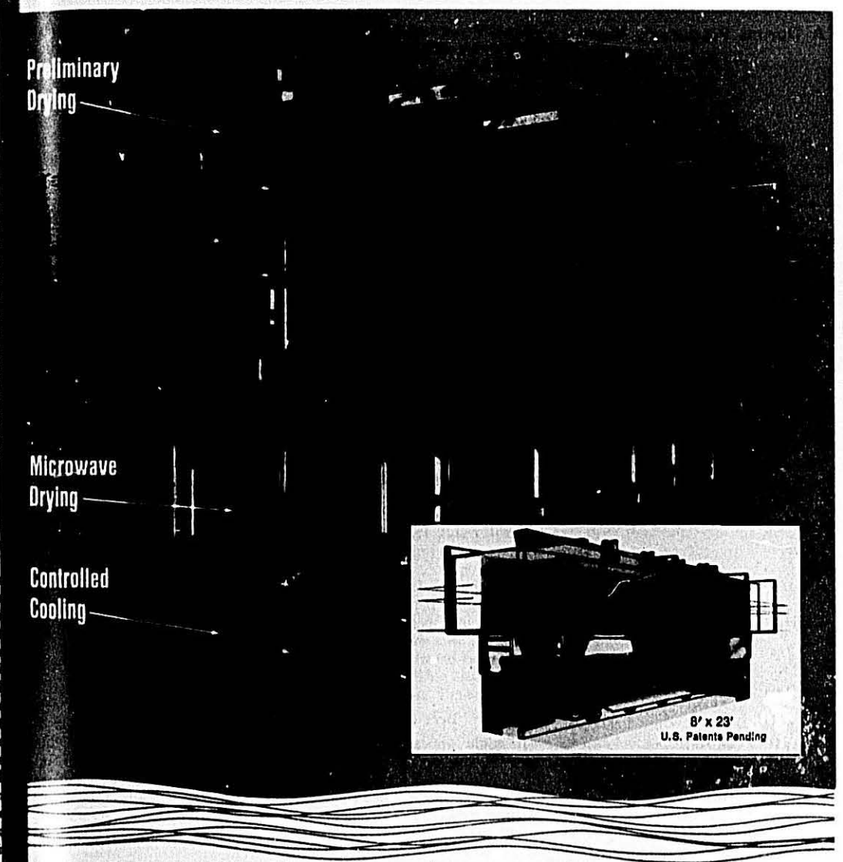
Poor Statistics

Another side effect, at least in t
stages of this transition, was the di
culty in obtaining adequate stock a
production statistics. With ASCS
longer having minutely detailed ac
age records and Commodity Cre
Corporation no longer playing as i
portant a role through farm loans, t
information input was largely re
gated to producer reports. Possib
not fully realizing the importance

(Continued on page

A Durum Producer's View

by Harold R. Hofstrand,
President, U.S. Durum Growers Assoc.



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A Durum Producer's View

(Continued from page 16)

accurate reporting and by nature not always willing to divulge his personal business, validity of these statistics suffered. You no doubt recall the consternation that erupted amid the industry two years ago when it appeared that as far as available durum was concerned, Mother Hubbard's bare cupboard would have looked like a Norwegian Smorgasbord. We producers were quite sure that there was enough durum in the country to last until new crop, and it happened to turn out that way, but I cite it only as another example of crossed signals that I alluded to earlier.

United States durum total production of late has been roughly twice the domestic requirements. Unfortunately, not all of our production is of the top grade as preferred by the domestic processors. Weathering at harvest time and to some extent disease problems often times result in a quality of a portion of our crop that may not meet the high requirements of our discerning American market. The export market enters the picture here and utilizes that quality of durum which will meet the export standard grade of 3 Amber Durum.

Mixed Blessing

The seemingly high durum prices of late relative to other wheats has proven to be a mixed blessing. Although domestic pasta products have enjoyed the highest sales volume in history, this volume has not been reflected by a corresponding increase in the durum grind. In fact, the past eight months has seen a 15 percent decrease as compared with the same time span of one year ago. We as producers are fully aware of the implications this may have on the future domestic market. We are certain that processors realize that for a variety of reasons, durum is entitled to a premium over other wheats. On the other hand, we as producers realize that this spread has limits beyond which it becomes an economic problem for you when #2 ordinary Hard Red Winter at Kansas City is under $4.00 and #2 Hard Amber Durum at Minneapolis is around $6.40. Admittedly this spread is unusual and should it continue it is only reasonable to assume that the cheaper wheats will continue to replace part of the durum market. We must also acknowledge that past experience in blending has not met with complete consumer acceptance.

Competition & Conditions

Historically, durum acreage is determined by two factors. This first is the price differential existing between durum and its competitor crops prior to seeding time. The second would be general soil conditions at planting time.

As to the first factor, price, the primary competitor for durum acreage at present is malting barley. This applies primarily to the eastern half of North Dakota, and would probably supplant more hard red spring than durum.

Soil moisture is the main governing factor relative to soil condition at planting time. At present, moisture conditions are very spotty in the entire durum area, with the greatest general deficiency in the so-called fringe areas. Much of this area has received recent snow fall, but it is too early to determine how much actual moisture will result. Past cropping history also is a determining factor as to whether or not a field is suitable for recropping. High fertilizer cost will enter the picture. Last year an unusually high percentage of land in the durum area was seeded to a crop of some sort because of good moisture conditions at seeding and a generally bullish overall agricultural outlook.

Bear & Bull

It might appear then, that from the foregoing we expect an outpouring of durum from farms this coming fall. Several factors, however, enter into the picture. The psychologically bearish ones are: prospects of a winter wheat crop of record proportions; fairly favorable total world wheat production prospects; Canadian farmers being asked by their government to increase production by 12 percent; memories of depressed prices in times of over-production; the recommendations of some major farm organizations to cut wheat production and the uncertainty about a farm program. The more actual and immediate limiting factors are: moisture shortage in many areas; high production costs of cropping marginally productive land that could be put into summer fallow and actual spring planning conditions a month from now.

The bullish factors are: strong present durum prices and relative strong durum futures market; ample supply of excellent durum seed varieties to seed any intended acreage; confidence in the expanding potential for useage of durum products; the natural tendency of a farmer to produce and make full utilization of his land; fear of losing present and future markets should the 1975 durum crop for some reason prove to be inadequate and ample storage space on farms should the crop be more than adequate for demand.

It is my observation that the durum producer will make a fair and practical assessment of all the foregoing factors and plant what is best for his particular farming enterprise for this year and for future years. At present there is not much reason to expect an increase over the U.S.D.A. forecasted March 1 planting intention, nor would one expect any sizeable reduction in acreage from the forecast figure of 2 percent over last year's planting.

Eggs Are Adequate

Food Marketing Alert from the U.S. Department of Agriculture says eggs are adequate, with output in March about 6% under a year ago and 1% less than May 1972-74. Surplus egg stocks are being diverted at favorable prices into wholesaler and bread outlets and have been sufficient enough to maintain confidence in current market values. (May 1).

A total of 34.5 million dozen shell eggs were broken March 2 through March 29, 1975 under the USDA Egg Products Inspection Act—down 34 percent from the corresponding four weeks of last year. Percentage decreases by regions from last year were: Western, 22; South Central, 31; North Atlantic and South Atlantic, 33; and North Central 37.

During the four weeks, 52 million pounds of liquid egg products were used in processing—down 35 percent from the same period last year. Ingredients added in processing totaled 2.0 million pounds, 34 percent less than a year ago.

Liquid egg production (including added ingredients) for immediate consumption and processing totaled 1.5 million pounds during the four-week period—down 16 percent from the same period last year. Products for immediate consumption totaled 1.2 million pounds, compared with 1.5 million a year earlier.

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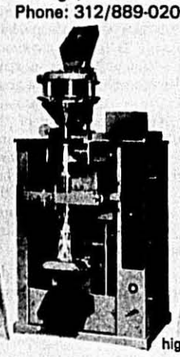

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Grain Procurement

by George Odegaard,
Grain Buyer, North Dakota Mill

If I make a statement that in three weeks, three months, or six months durum will sell for $4 or $8 per bushel, is there anyone in this room who can for an absolute certainty say that I am wrong?

In today's worldwide wheat market the price paid for wheat has no limit up, nor has it any limit down. Have we forgotten 1973 so quickly?

I'm going to make one more statement: I'll bet if durum went up to $8, some farmers still wouldn't sell their durum.

I'll bet if durum went to $4, some grain buyers (and may I include macaroni manufacturers) would not buy.

Bulls & Bears

There are generally two classes of people in the grain marketing business. These classes make the system work. On the one hand we have the bulls who invariably believe the market is going up. They are the buyers. They create the bullish market. On the other hand, we have the bears who believe the market is going down. They are the sellers. They create the bearish market. They can reverse themselves. At times a bull may become a bear or vice versa. At the moment I am sure I am speaking to a group of bulls and a group of bears. You classify yourself.

I am a grain buyer. I have to work with you bulls and bears every day. Especially in the last three years you wild, obnoxious, gyrating, bullish, bulls and bearish bears have made a monkey out of me more than once.

There are many advantages in being a grain buyer. The working conditions are generally pleasant. The working hours are reasonable. The pay is commensurate with the responsibilities. We travel quite extensively and we meet a lot of interesting and intelligent people. But there are always two sides to any coin.

On The Receiving End

I would like to give you a brief conversation with a grain buyer on the receiving end. Your duty, as a grain buyer, is the procurement of all various types of wheat and durum necessary to meet the requirements for milling purposes at our flour mill.

"Yes, sir."

I am sure you are aware of the wide range in the price of durum of as much as 35¢ to 50¢ per bushel between the low quality and high quality grades of durum. We must always purchase only the top quality for milling purposes.

"Yes, sir."

"I hope you are aware of the tight money and high interest rates of up to 12% and the high price of grain. We must at all times keep our inventory at the rock bottom. Any excess stock is prohibitive. It costs us 6¢ per bushel per month to own this stock. You know we can't run this mill on air. At all times you must keep enough inventory to make sure you have enough grain on hand for all our mixes and blends and enough stock to meet any contingencies such as lack of boxcars, inclement weather, or the refusal of farmers to sell their grain at depressed prices. That makes sense. At no time will we tolerate any speculation in this company. When a sale is made, you get it covered immediately!'

A wise old man once said, and I quote, "Freedom is not worth having if it does not connote freedom to err."

I think this was written especially for grain buyers. It is a very convenient crutch at times. It keeps us sane. However, let me say now—any grain buyer who uses this extensively, should be at the front door of the employment office on Monday morning. I am very happy that I work for a company that subscribes to this last statement. I am appreciative of the fact that I work for and with people who agree with this thesis. I am sure most companies do.

Perhaps at this point I should define two terms: Hedging and speculation:

Hedging is buying a future with the intention of taking delivery of the wheat for future date or selling a future with the intention of delivering the wheat at a future date.

Speculation is buying or selling future with no intent to take or give delivery of the grain at a future date. Buying a future only with your hope that the future will go up or selling that it will go down with an anticipated profit from the transaction.

Long and Short Grain

If a company buys grain before sale is made the company would be a long position. If a company makes sale but has not purchased the grain the company would be in a short position.

We are talking primarily about durum procurement. However, I would just mention wheat procurement in passing. In regard to wheat we have a very viable and responsive wheat future in Minneapolis. When we sell wheat flour we immediately cover that sale with cash wheat, to arrive or futures hedge. We make no exception to this rule. Management insists that grain buyer do so. I would not want for a company, our size, who did not insist on it. When I go home at night I'm even with the market.

If you use the futures for a hedge on wheat sales why not hedge durum sales and purchases and make it a relatively safe and simple operation? A durum future was established at the Minneapolis Grain Exchange about two years ago. We were happy to see it. Up to now, however, the trading in this future has been too narrow and has not been viable, it has been very difficult for a business of our size, at least, to get in and out. Some time in the future, perhaps, but as of now, no.

Then you say, you are really speculating every day in the purchase and sale of durum for milling purposes. To a degree, Yes.

In place of the hedge for durum purchases and sales we use instead the "position." It is not perfect but it is helpful.

A "position" is a statement primarily by the grain buyer of wheat he believes is the approximate price range in which the producer, through ordinarily marketing, will sell his durum on the open market and what the ma

will pay the miller for the product during a given period It is not infallable—it is only nt.

osition the grain buyer takes e an effect on the farmer, the yer, the miller, the manufacr, d the ultimate consumer. This ition is not just picked out of the This position is arrived at after reful consideration of the many facs involved which I would like to cuss very briefly with you:

1. Communication
2. Extensive reading and study of crop reports internationally, nationally, state wide, and locally.
3. Crop inspection trips
4. Taking a position
5. Buying the durum.

Information

Time will not allow me to discuss se in depth: Communication versus k of communication I believe is ny times the difference between fit and loss—success and failure. mmunications between the grain er and management, credit, sales, farmers, the grain trade wheat missions, government agencies, gressmen, and the manufacturing ustry are all essential in the development and finalization of a position. Extensive reading and study of rets eminating from all these sources both national and international s are effective tools in arriving at osition.

Inspection Tours

f the most interesting and hings I do are the four crop tours I make during the ew weeks after planting has pleted a swing through the heck on emmergence, field , moisture conditions, and wth. Very little time for com- on this trip. A second trip very much like the earlier

meantime extensive reading ly of crop condition reports ather reports from our Extenepartment at Fargo and local ty agents.

he third trip is mostly visitation farmers in the durum growing —shortly after the heading of the . This has always been a delightxperience. A cup of coffee and a trip to individual fields. A walk in a field of golden amber durum talking, observing stands, size of heads, weed infestation, insect and disease problems.

These farmers are the masters of grain production in our state and nation. They are real students of agriculture. They make use of all the old and new techniques available to them to make the most of production. One farmer is his own pathologist. He has his own microscope and laboratory. He doesn't wait for disaster—he prevents it. Another will show the effect of fertilizer and weed control on a given field, another new practice that has just been implemented.

I hold high regard for the tiller of the soil: there is much to be learned from them.

The last trip is the gathering of samples at harvest time to begin the assessment of quality and production, which is so important in establishing a position.

Take A Positive Position

Upon completion of these steps there is really only one person who is personally responsible for making the initial assessment and arriving at a position that is the grain buyer. There will be pros and cons if and buts, but a position will be reached.

A position must be positive, unalterable from day to day, steadfast, responsive to all segments of the total industry and yet realistic.

A wishy washy day to day changing position is much worse than no position at all. And, even though the market may not always respond precisely to your position—he must never never panic. The wishbone here must never replace the backbone.

You may ask them—Don't you ever make a change in your position. The answer is yes.

Time again will not permit a full discussion. I will merely give you three examples.

1. Locally, it may be one of many factors—inclement weather—drought, prolonged rain at harvest, frost, disease or insects or aphids.
2. Nationally—it may be appointment of Earl Butz as Secretary of Agriculture.
3. Internationally—when Mao Tse Tung finally climbed to the top of the great wall and said—"Come over and see me sometime."

Any of these would call for immediate communication and discussion to reevaluate your position and establish a new position.

Let me use a very simple example, then to illustrate how the position works.

You recall my opening remarks about $4 durum and $8 durum.

You call that a "Position."?

If a grain buyer can't narrow that down considerably he should be out pickin peas.

If a grain buyer picks a position from $5.95 to $6.05 he's going to wind up in trouble.

Let's be reasonable.

What is the real purpose of the Position?

You recall one of my earlier statements—the purchase of the raw products at an attractive price is the key to a successful sale.

Our customer is the pasta manufacturer. He is our buyer. How do we serve him best?

Let's go back to my old country school house and the teeter totter.

Let us suppose that the fulcrum of the teeter totter is the center or average of your grain position. You have a latitude of, oh let's say, 80¢, up and down.

Let's say that $6.00 is the fulcrum or average price. That makes your range $5.60 to $6.40.

You buy some durum from $6.00 down to $5.60, when it gets there you don't buy enough for a whole year. It can go down further.

You buy durum from $6.00 to $6.40 because it might go higher.

If it goes higher, you probably get out of the market because you feel it is high enough.

If you can buy it on the way down, and on the way up, you should have durum for sale in all these ranges.

But, you ask why don't you buy all your durum below the fulcrum or $6.00 and give your customer a good deal and you make lots of money.

I'll tell you why.

I am not smart enough that's why, I haven't found anyone in sales and management that is smart enough either.

In Summary Then:

If we can buy our durum at a price

(Continued on page 24)

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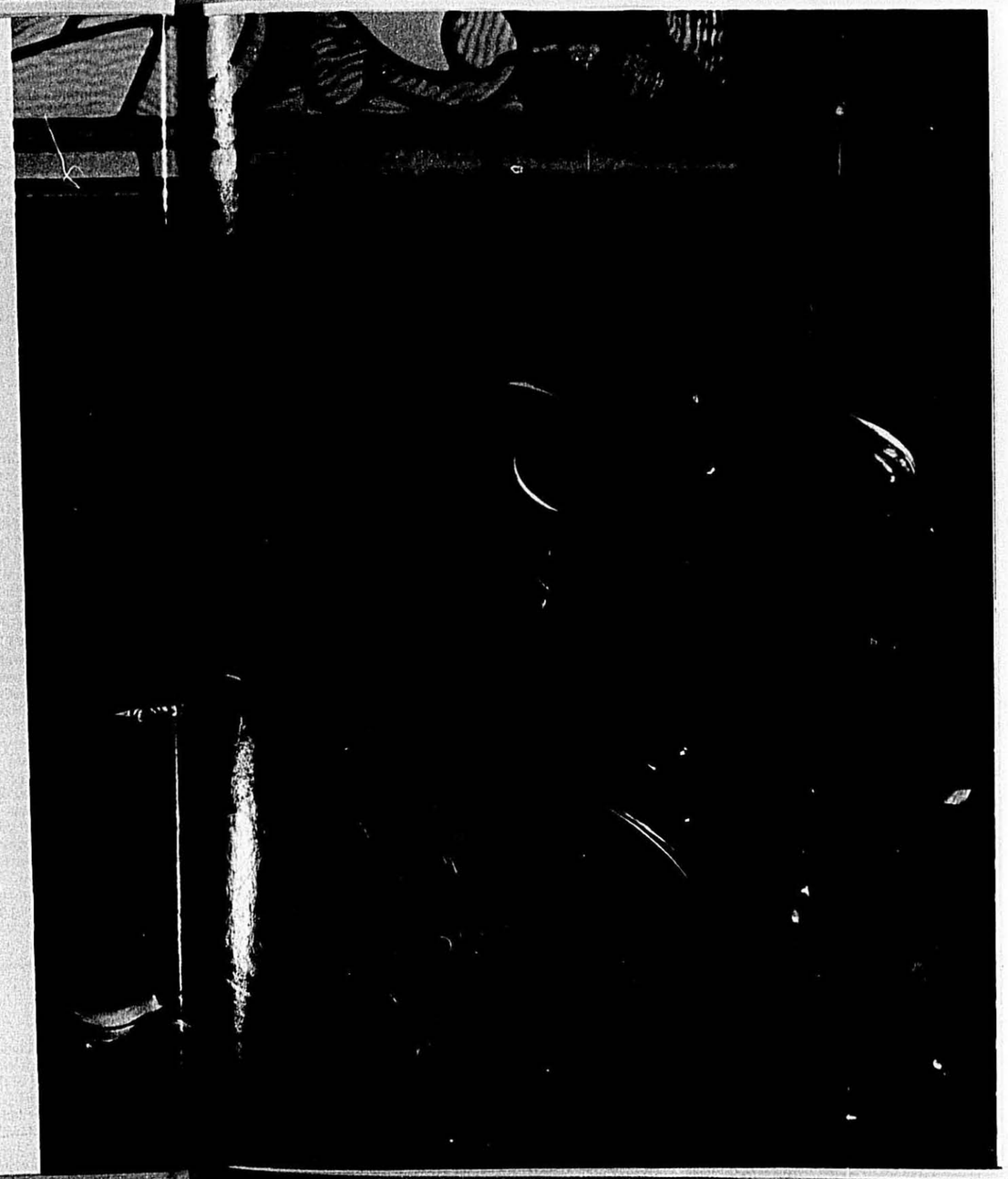


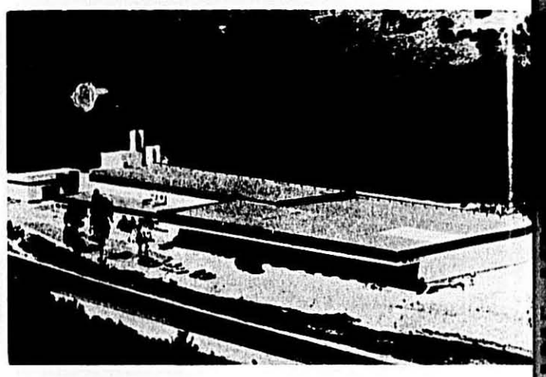
Grain Procurement

(Continued from page 21)

—some below, some even, some above, and make sales to our customers at the fulcrum price—that is some below—some even and some above, then sales and management should feel they have served their customers well. The grain buyer should feel he has served his company well.

We sincerely hope the pasta manufactures will feel they have been served well.

We sincerely hope that in so doing that all the way from the producer to the ultimate consumer, that we have all done well.



Pictured at the right is the new plant of Osem at Haifa, Israel.

Macaroni Around The World

The Durum Mill Grind reported by the U.S. Department of Commerce in the past has been the indicator for the production index trend of the macaroni industry. It is not reliable now, as in the summer of 1973 price controls and the export scare led domestic macaroni manufacturers to wholesale blending of other wheats with durum.

In recognition of this fact, the Department of Commerce reported blends being produced by durum mills in the last quarter of 1974, but discontinued this reporting even though the economics of the marketplace indicate that blends are still being widely used. The Durum Mill Grind for 1974 was down 12 percent. For the first two months of 1975, it was down 4.4 percent with straight semolina production down 7.3 percent.

Contributions to the National Macaroni Institute, based on production volume, was up 3.4 percent in 1974. First quarter receipts were up 2.4 percent, which is the best barometer of business now available. It should be noted, however, that as many contributors showed declines as increases. Some as much as one-third over or under performance of a year ago.

In Canada

The high price of durum the world over has taken the edge off of the rapid climb that macaroni sales had a year ago. In Canada where spring wheat is being used along with durum, sales trends last year were do
A 2 percent market growth is p
jected for 1975 with future prospe
tied to population growth.

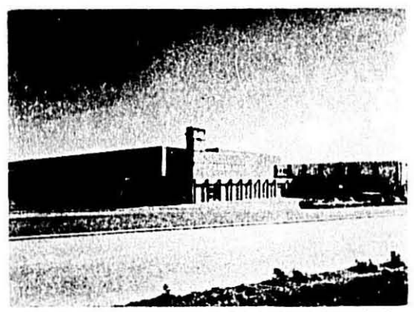
Inflation with its cost pressures
packaging, labor, and working cap
constitute a major problem.

Typical of finished goods prices
a one pound box at 15¢, a two-po
cellophane bag at 85¢ to 87¢.

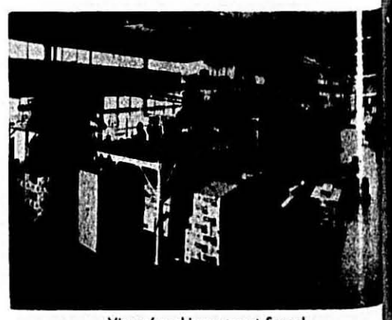
South of the Border

South of the Border reports are t
macaroni sales are up and that fut
prospects are good for the th
plants operating in the countr
micelli, spaghetti, macaroni an
goods are the most popular v
and generally the raw materi
is durum.

For a while in 1974 there
influx of Mexican imports i



Exterior of new plant of Sangal, S.A. at Nyon, Switzerland.



View of packing room at Sangal.

thwe ern United States, selling at
il p ces below the cost of raw
teria n the U.S. When the Mexi-
Go rnment discovered that they
e su idizing American consume s
y pu on an embargo of exports,
our atest information is that im-
ts ha e resumed again.

Pasta consumption has been in-
asing more rapidly in Mexico than
er in the United States or Canada,
is estimated at about 4 kilograms
capita at present. It runs about 6
grams in Brasil, 10 in Argentina
Venezuela and 12 in Peru.

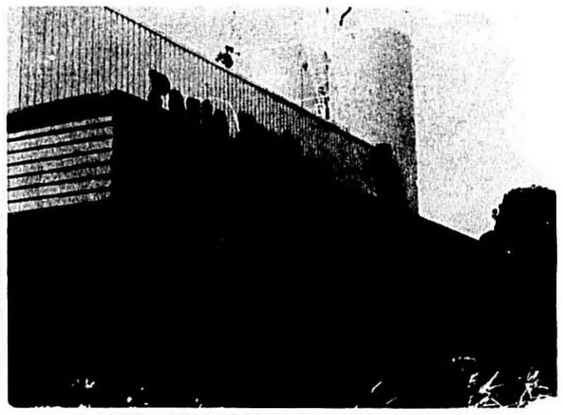
In the Carribean, Catelli Primo,
from Trinidad reports that maca-
i sales have been on the rise over
past five years and the projections
for future growth. This company
just installed a new DeMaco
tomatic Long Goods line with ca-
city of 1,000 pounds per hour.

There is another plant in Trinidad
one each in Barbados and Ja-
ica. Long goods are the most popu-
cuts and are packed in boxes and
ellophane. A major problem at the
sent time is government subsidies
competitive items such as rice,
atoes and flour.

In Europe

Overseas in the British Isles, Pasta
ds, Ltd. of St. Albans and Great
mouth have expanded the facility
ginally opened in July of 1972. On
ruar 12, 1975 the new extension
at o stream with production of
tons spaghetti per day, in addi-
n to 14 tons made on the adja-
t pl An associated short goods
is i facturing 12 tons of elbow
car twistetti, shells and similar
.

The v scale of production has
bi ht with it new systems of
ma packaging, incorporating
ck ghers, metal detectors and
ma fault rejection devises. This
e pment is highly flexible so
P Foods is now offering con-
t p aging services to companies
in pasta market. Export mar-
a also developing rapidly in the
dle East, Africa and the Far East.
ast fall there were reports that
y's 18 percent inflation rate, high-
in the Common Market, was creat-
changes in eating habits of
ans.



Pasta Foods Pty. Ltd. in New South Wales, Australia.

For many, pasta was no longer the indispensable "primo" course, leading the way to thick Florentine steaks or roasts. The spaghettis, fettuccines, and lasagnes were becoming meals in themselves because meat was being given up completely because of its high cost.

Then came reports that Italians were enduring a shortage of pasta and there were riots in the streets. We have reports that indicate that this was played up too much in the press and was not as dramatic as indicated.

In any event, the sick man of Europe is now well on the way to recovery and inflation is subsiding. Swiss manufacturers were complaining that prices of finished goods from Italy were cheaper than their cost of raw materials at the end of the year. Verband Schweizerischer Taigwarenfabrikanten reports that special semolina for delivery June, 1975 costs 110 to 120 Swiss francs per hundred kilogams. Odinary semolina costs 103 to 113 Swiss francs per hundred kilograms.

Because of the high price of durum and semolina, plus the competition with cheaper food stuffs like potatoes, business has been dull and 1974 saw 15 percent reduction from 57,800 metric tons to 49,200.

There are 25 firms in Switzerland, 20 of whom belong to the National Association. Egg noodles are the most popular product with egg spaghetti and short good elbows following. 60 percent of all products are made with eggs.

Buhler Bros. in Uzwil, equipment suppliers, report that because of the uncertain future there have been no major investments for new equipment. However, a new macaroni plant of Sangal at Nyon, in the neighborhood of Geneva, began operations in 1974.

B. Birkel Sohne of Endersbach reports that consumption in Western Germany has not changed essentially, but there is a preference on the part of consumers to buy cheaper qualities. Although raw material prices declined somewhat in 1974, the price differential between hard amber durum and softer type wheats makes blending imperative and this tightens competition. Some 80 plants are producing an estimated 210,00 tons of finished goods.

In the Netherlands five plants have capacity of 33,000 tons and sales have been steady. The Dutch have also been blending to produce the most popular elbow macaroni, then spaghetti and egg noodles. Products are packed in flexible bags and cardboard boxes in 250, 500 and 1,000 grams sizes.

New Plant for Pasta and Biscuits in Israel

Osem Food Industrial Ltd. doubled its production capacity by opening a

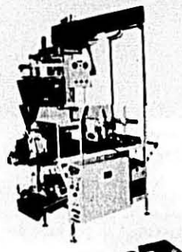
(Continued on page 28)

yes! WRIGHT we can HELP!

with our line of equipment for the macaroni and noodle industry.

▶ACCURACY ▶PRODUCTIVITY ▶EFFICIENCY ▶WASTE REDUCTION

Form-fill systems for your flexible package needs.



We offer a complete line of form-fill systems with single and multi-tube units that can produce packages at a rate up to 120 bags per minute.

Volumetric Automatic single tube form-fill-seal system with a volumetric filler to satisfy a wide range of macaroni/noodle applications.

All systems offer the latest automatic features in net weighing

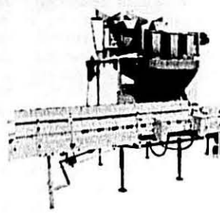
Our bagmaking principle, which eliminates the rigid tube for package forming, permits us to handle a complete line of products, including egg noodles, without bridging at the fill station.

Net Weigher Automatic single tube weigh-form-fill-seal unit with fully controlled feed system; up to three Electroflex® scales; and high speed bagmaker. Weighs and packages any macaroni/noodle product that can be handled on vibratory feeders.

Du-O-Bag Versatile, high production system requires only one operator. Each side has controlled feed, up to three Electroflex scales or automatic self-correcting scale, and bagmaker. Each side operates independently of the other and can run different products and package sizes.

Wright has the capability of designing a machine for your packaging requirements. Call our representative today.

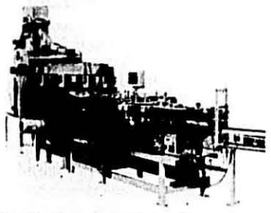
Complete carton systems for rigid container needs.



Inline net weighing systems for rigid containers in multi-headed designs of from 2 to 6 scales work with existing carton units, or are available as a complete system to include a carton machine. Speeds from 30 to 90 packages per minute can be achieved.

Automatic Recalibration ▶Automatic Tare Correcting
Push Button Scale Setting ▶No Underweights
Wright can help you save dollars and increase profits!

We offer two models of rotary net weighers for rigid containers where speeds in excess of 70 per minute are required. With either 12 or 18 scales, speeds up to 200 packages per minute can be obtained. Product is handled and packaged in a continuous flow which greatly reduces breakage of fragile macaroni/noodle items.



We assume the responsibility for the complete feed system to the machines and prepare even the most difficult macaroni items for efficient weighing and minimum breakage.

WRIGHT MACHINERY COMPANY, INC. Durham, North Carolina 27702 Telephone 919-682-8161
Canada: PMA Packaging Machinery Ltd. Montreal Telephone 514-744-6424

New Plant in Israel

(Continued from page 25)

new plant of 8,000 sqm built area for pasta products and biscuits on April 24. The new factory, located near Haifa, has three large production lines: one for macaroni and spaghetti; one for noodles and short good pasta; and one for biscuits.

Osem, started in 1942, has become Israel's largest manufacturers of pasta products and biscuits and the biggest flour processor in Israel. They have been processing 70 tons of flour a day, and the new factory will double production capacity and enable the company to cope with export commitments to more than 25 countries. The company supplies 90 percent of Israel's consumption of pasta products, which has been trending slowly upward and 100 percent of Israel's export of pasta. Osem is one of Israel's leading food manufacturers having a wide range of food products in addition to pasta and biscuits, such as dehydrated soup and sauce mixes, snacks of various types, instant dessert mixes such as instant pudding and whipped jelly; food specialties like fried onions, pancake mix, soy sauce, instant hummous with Tahina-Oriental dips. The company employs about 1,000 people and operates four plants.

Most popular varieties of pasta in Israel are thin noodles, spaghetti, elbow macaroni and products specially developed by Osem: toasted short cut macaroni of different shapes.

The government procures the wheat which, unfortunately, is not always of the same standard, but the company has found ways of applying special technology to arrive at a high-class product. They consider their major problems in addition to the political and security situation, as price controls, over-employment and high taxes.

In Turkey

Wheat occupies about 55 percent of the cultivated area of Turkey. The Ministry of Agriculture estimates that 80 percent of the caloric intake of villagers, who represent two-thirds of the population, comes from grain, of which 80 percent is wheat. Per capita wheat consumption in Turkey is roughly 400 pounds annually, among the highest in the world.

Record wheat harvests in 1971 and 1972 enabled Turkey to become a net exporter of wheat for the first time in twenty years. But Turkey resumed wheat purchases in the 1972-74 season, importing some 652,000 metric tons including about 305,000 tons from the United States.

In 1973, 13.6-14.8 million acres were seeded to bread wheat, with durum accounting for 4.9-6.2 million acres. Although pasta products are increasing in popularity, they account for less than 2 percent of the wheat consumption.

Maktas, Makarnacilik ve Ticaret T.A.S. of Izmir is the most important producer with the brand name Piyale. One of their major problems has been the availability of a standard quality durum wheat.

Down Under

Down under in Australia, Pasta Foods Pty. Ltd. in New South Wales reports that the trend has been a steady growth of 5 percent annually and future prospects are for this continued growth.

There are approximately four major plants with average capacity of 25 tons daily and about four small plants with average capacity of about 4 tons daily.

Blends of durum and softer wheats are being used to produce spaghetti, short cut macaroni and Pennine. These are packed in polyethylene bags of 375 grams selling at 39¢, 500 grams at 48¢ and 750 grams at 72¢.

Rapidly rising labor and operating costs are a major problem.

From Japan comes a report that consumption of macaroni products has been steady with a slight increase in long goods for the twelve factories in that country. The Japanese are using a mixture of durum semolina and hard wheat granular and sell their finished products for 100 yen for a 300 gram poly-cello package. They would like to get better prices and increased consumption.

Pasta Foods, Ltd.

On February 12, 1975, Pasta Foods, Ltd. put into production its second plant addition at Great Yarmouth, Great Britain. When the original plant was installed in July, 1972, the long goods line, producing 14 tons a day, was said to be "the size of a house". The new line, manufacturing 25 tons a day, looks more like an ap[artm]ent block.

Nearly 100 yards long and [ne]arly 20 feet high, this Braibanti Cobr[a] is one of the largest spaghetti pro[duc]tion lines in Europe and has the inheri[ted] world-wide technical experie[nce] and development. At every stage, the[re] is evidence of innovation, developed [and] tested by practical experience.

In launching the new opera[tion] managing director, Freddie Fox, [de]clared: "Right from the beginn[ing] we have recognized that the p[ot]ential market in the United Kingdom [will] grow to a far greater extent than [we] can predict today. So, as you w[alk] around our new premises, you will [see] that while we have put in a p[lant] big enough and powerful enough [to] meet the immediately foreseea[ble] needs of the food industry, we [have] well provided for extension."

As production capacity of [Pasta] Foods, Ltd. has increased, resea[rch] facilities and the skilled people [to] make the best use of them have [been] built up in parallel.

New Product

A new product development, [a] oury Macaroni is offered in [four] flavors: Mild Cheddar, Garden Ve[ge]table and Spicy Tomato, all a b[lend] of pasta with herbs, spices, che[ese] and vegetables.

"The concept of a savoury m[ac]aroni is immediately understood by [the] consumer", says David Bain[es, G]eneral Manager of Sharwood's. "We [see] these products being served initi[ally] with sausages, beefburgers and [hun]dred lunchtime and high tea di[shes] though they will eventually ap[pear] alongside chops, poultry and m[ore] sophisticated foods."

The sophisticated techn[iques] quality control developed [at] Great Yarmouth is a major contributor to [the] fact that Britain now exports pas[ta to] Italy on a regular basis. Thr[ough] sociated Health Foods, the [com]pany is sending top quality wholem[eal] spaghetti and macaroni for sal[e in] health stores throughout Italy.

Tortellini by Pagani

Pagani Industrie Alimentari [S.p.A.], Vimercate (Milan), Italy, adver[tised] in the September issue that they [are] a leading Italian food manufac[turer]

(Continued on page

JACOBS-WINSTON LABORATORIES, Inc.

EST. 1920

Consulting and Analytical Chemists, specializing in all matters involving the examination, production and labeling of Macaroni, Noodle and Egg Products.

1—Vitamins and Minerals Enrichment Assays.
2—Egg Solids and Color Score in Eggs and Noodles.
3—Semolina and Flour Analysis.
4—Micro-analysis for extraneous matter.
5—Sanitary Plant Surveys.
6—Pesticides Analysis.
7—Bacteriological Tests for Salmonella, etc.
8—Nutritional Analysis

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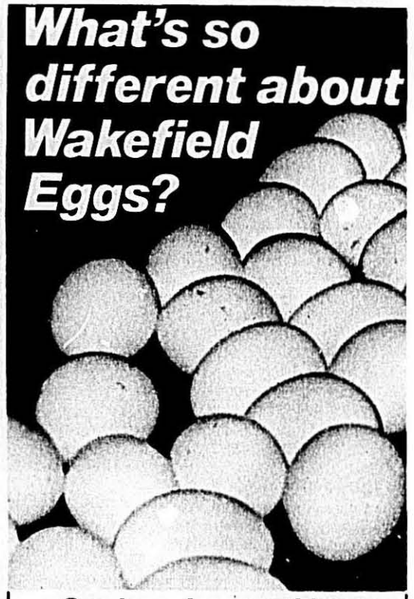

Service - for one thing

After all, with USDA supervision and regulation, eggs are eggs. Right?

Wrong. Eggs and egg products are only as good as the people who supervise their production and processing. And quality means nothing if you can't get product when you need it.

Our people make the difference. We're proud of our new AA production facility—Big Red Farms. And quality is a personal thing with us. We've got the product and the knowhow to deliver what you need and we'll bend over backward to please you.

There is a difference in Wakefield Eggs. Try us and find out.

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CARTON EGGS • FROZEN EGGS
EGG SOLIDS • CUSTOM BLENDS

Tortellini by Pagani

(Continued from page 28)

making high-grade dried Tortellini and Ravioli, which are durable for a period of twelve months.

They report that the trend of dried stuffed macaroni products in Italy is increasing. There are only three plants in the country producing such products out of the 450 making pasta.

Pagani utilizes semolina durum wheat, eggs, salted meats, roast beef and pork, parmesan cheese, breadsticks crumbs, vegetables and salt. Packaged in cellophane, weighing 8-¾ ounces, the selling price at retail is $3.00 per kilogram (a kilogram is 2.2 pounds).

They are seeking a liason with an American company to produce and sell quality products in the United States.

Maggi Soup Mix

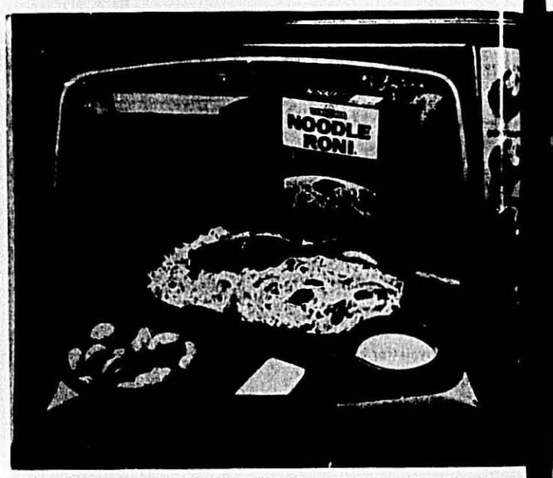
A&A-Cresca, a division of Filigree foods, Totowa, N.J., will distribute the Maggi soup-mix line in the Eastern U.S. It includes such varieties as leek; oxtail; meatballs with noodles and egg macaroni shells. Individual packages provide 6 oz. servings for six. The soups come 12 boxes per display tray, packed 6 dozen to a case.

Ronco Advertising

"A Super Supper Salad" for light summer meals is featured in new magazine ads from Ronco Foods of Memphis.

The ⅔-page, four-color ad appears in the June issue of Southern Living and the July Family Circle.

Easy preparation with quality Ronco macaroni is the copy theme. And, along with the finished salad, Ronco's 8- and 12-ounce elbow packages are shown to boost their self recognition.



A Bit Of Old Italy

Golden Grain announces they're putting lots of "lira" behind a new television campaign to promote Noodle Roni, the popular package dinner inspired by world famous pasta dishes of Italy.

The campaign gets underway during the middle of April on the Dinah Shore show seen in Los Angeles on the CBS network station KNXT-TV. Additional Noodle Roni spots are scheduled each day on Los Angeles station KHJ-TV and over leading stations in San Diego, San Francisco and Sacramento. In the East and Mid-West the campaign runs concurrently over 4 top TV stations in New York and 4 stations in the Chicago, Milwaukee and Green Bay area.

New commercials with shots of Venice and Rome have been filmed to capitalize on the Italian heritage of these world famous dishes made from Noodle Roni.

The campaign will run throughout the spring months and into midsummer.

Call It Macaroni

General Foods is one of the sponsors of a new children's educational TV series, **Call It Macaroni**, now being seen on 81 TV stations across the country. The 12 half-hour segme each self-contained and slated t shown one each month throug 1975, tell how people live, work play in various places in the U States, as seen through the eye young visitors, 10 to 12 years from other parts of the nation.

For example, the first segment, A Long Way Up," shown in Jan recorded the adventure of thre delphia, Pa., youngsters clim Mount Hood in Oregon. The ruary presentation, "Give Th Cr A Tumble," followed three 11-y olds from Pittsburgh as they spe week living, working and trave with a tent show in Colora lo. March segment, "Fly Like A Bi takes two young people fr m Francisco all the way to Ver ont soaring lessons in sailplanes an Cape Cod, Mass., to try glid ng hang gliders.

Those who would like to t ne i the program should check th ir l TV listings for time and stat ons

Double Coupon

Ragu' Spaghetti Sauce is offe 40¢ off your next spaghetti dinner 20¢ coupon for one quart of R Spaghetti Sauce and another 20¢ pon for a two-pound package of aroni is offered in newspaper ad tising.

71st Annual Meeting To Be Held At Pebble Beach

e 7 Annual Meeting of the
Nati Macaroni Manufacturers
ciati will be held July 13-17,
at t Del Monte Lodge, Pebble
h, C ornia.

ndc Digest

ay, J y 13
n L ch: NMI Committee
m. Board Meeting
m. Cocktail Party
nd Reception

lay, July 14
noon—State of the Industry:
andards, Statistics, Legislation.
m. Tennis Round-Robin
7 p.m. Suppliers' Social
8 p.m. Italian Dinner Party

Tuesday, July 15

9 to noon—Grocery Industry Trends; Ed Walzer, Progressive Grocer; Grocers' Panel-Macaroni's Status.
11:30 Bus Tour to Carmel.
1:p.m. Golf Tournament
7 p.m. Suppliers' Social

Wednesday, July 16

9 to noon—Product Promotion
Afternoon free for recreation
7 p.m. Suppliers' Socials
8 p.m. Dinner-Dance

Registration Recap

Convention delegates are expected to register for business sessions. The fee is $50 for three business meetings plus a $25 surcharge for non-members.

The fee pays for programming, audio-visual rentals, outside speakers' expenses. The registration fee is waived for wives and children not attending meetings.

Pre-registration should be made with the office of the National Macaroni Manufacturers Association, P.O. Box 336, Palatine, Illinois 60067.

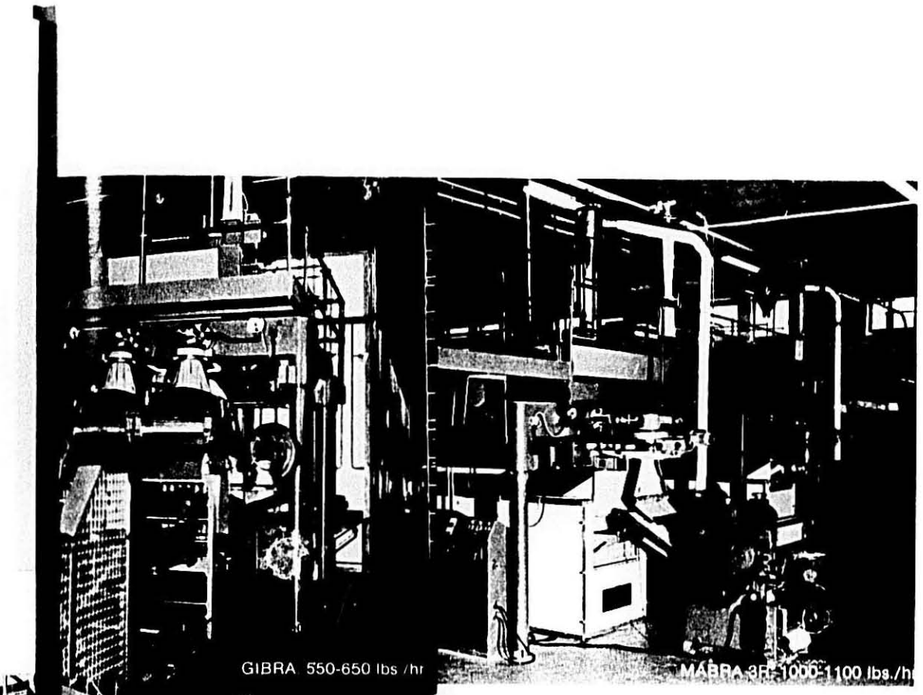
Room reservations should be made directly with Del Monte Lodge, Pebble Beach, California 93953, by June 15.

The overachievers.

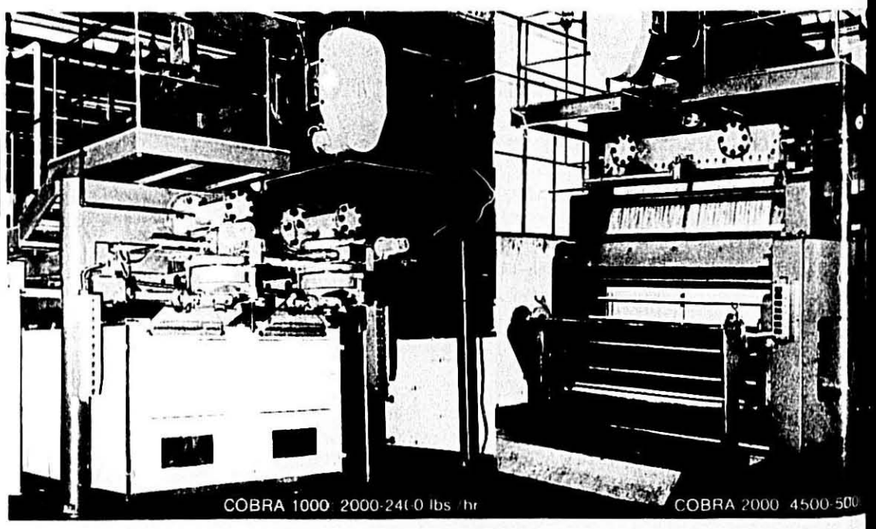
We call them the overachievers, because they deliver more than we promise. From the smallest to the largest, every Braibanti pasta press is put together with more guts, more durability, more potential for productivity than they really need.

But that's what you've come to expect from the people who have manufactured and installed more pasta-producing equipment than any other company in the world.

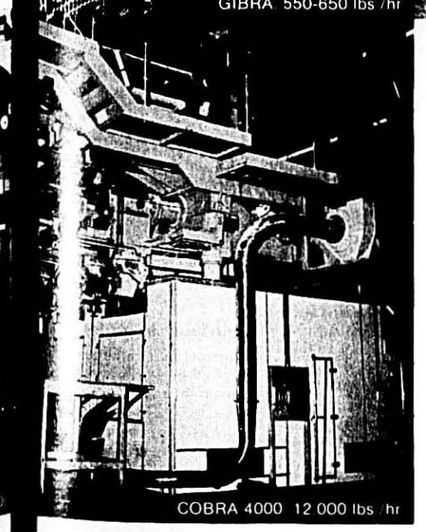
Of course the Braibanti presses are just the beginning of a great pasta line. Braibanti also makes flour handling equipment, cutters, spreaders, stampers, pinchers, shakers, predryers, dryers and packaging equipment. In short, everything it takes to make any pasta product on the market.


GIBRA 550-650 lbs /hr

MABRA 3F 1000-1100 lbs./hr


COBRA 1000 2000-2400 lbs /hr

COBRA 2000 4500-5000


COBRA 4000 12 000 lbs /hr

Braibanti

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20122 Milano-Largo Toscanini 1

BRAIBANTI CORPORATION
60 East 42nd Street
New York, New York 10017
Telephone (212) 682-6407
Telex: 12-6797

Creamette Plant Featured in Food Processing

Food Processing magazine for April carried a lead story on the new Creamette plant, recently opened in New Hope (Minneapolis). This factory has been designed for the ultimate in sanitation, safety, labor efficiency, flexibility, future expansion, quality products, and inventory control. The building of pre-stressed concrete was designed for ease of cleaning and will permit expansion to twice present capacity.

High speed packaging system to handle short goods into cartons, egg noodles into plastic pouches or paperboard cartons, and fragile spaghetti in a pocket in-feed conveyor to cartoning machines are described and pictured in detail.

At the conclusion of the article there is a listing of suppliers of various types of equipment utilized in the new plant.

Skinner Expansion

Skinner Macaroni Company has broken ground for the construction of an 8,800-sq.-ft., two-story, steel-and-concrete addition to its facilities at 6848 F Street, in Omaha, Nebraska.

Cost of the new building and equipment is estimated at $790,000 and the structure should be ready for occupancy in August of this year.

Half of the space will be used to house a new long goods line, upping production capability from an annual 48 million pounds of product to 65 million. Plans call for the balance of the space to be used for offices, an in-house quality control lab, a consolidated computer room, and a test kitchen.

Skinner Macaroni Company manufactures 33 different pasta products with distribution in 32 states with an annual sales volume in the $20,000,000 range.

IPACK IMA '76

Ipack Ima '76, International Exhibition for packing and packaging, mechanical handling and food processing machinery is scheduled to be held in the Milan Trade Fairgrounds, February 16-22, 1976. This show has the greatest collection of macaroni processing equipment exhibited in any one place. In addition, packaging and mechanical handling equipment for the foodstuffs industries are shown.

On the exhibition premises visitors will have at their disposal interpreters, offices for booking accommodations, travel agency, banks and exchange offices, offices of the Ministry for Foreign Trade, press office, post office, telephone, telegraph and telex. To facilitate contacts with exhibitors and those interested in the exhibition, Ipack Ima has installed in its offices at 62, Via C. Ravizza in Milan a new telex service with the number 39134.

New Macaroni Extruders

The series of Buhler macaroni extruders was extended with the new double screw extruders TPBD-155 (175) and TPCD-200 for the production of short and long goods.

The double screw extruder TPBD, with distributing tube and a die length of 2000 mm (80 in.), is best suited for the production of long goods, as the use of two extruding screws shortens the distance between the screw ends and the die, therefore, reducing the temperature rise. The extruder can also be equipped with two heads for 400 or 450 mm diameter dies for production of short goods.

Meets High Demands

High quality, technical advancement and know-how, and many years of experience are combined in this new process, making it able to comply with today's demands in every respect. Some of the requirements to be met were:

(1) The sanitation requirements for the production of macaroni are constantly being increased in most countries and more emphasis is being placed on the bacteria count. Buhler has paid maximum attention to these requirements in the designing of macaroni production equipment. The extruders are designed for maximum accessibility with all parts coming into contact with the product being made of stainless steel to enable a quick and thorough cleaning to combat bacteria growth.

(2) All drives are designed to run quietly and with vibration, thus keeping the noise emission at a minimum.

(3) Low maintenance wa[s] on[e] the main design requirement and completely fulfilled.

Advantages

Some of the outstanding d[e]sig[n fea]tures and advantages are [:] M[ixing] trough, mixing shafts, pad[d]les[,] screws are manufactured of sta[inless] steel; outboard bearings, away [from] product. Sanitary, easy and fa[st to] clean. Screws with high effici[ency] cylinders with optional spiral w[ater] cooling and water flow meter. Ex[trud]ing of the dough at low temper[ature] results in favorable cooking cond[ition] of the macaroni (gluten is not [des]troyed). Reproducible results, th[ere]fore producing uniform products [with] no risk of product loss.

- All screws are equipped [with] front bearings. Little wear a[nd] longer life of the screws [and] cylinders. Depending on the [type] of dough, the screw can be [com]bined with a kneading padd[le to] achieve a more homoge[neous] dough and a uniform disch[arge].
- No lubrication points, mi[nimum] maintenance.
- The vaccum seal on the [screw] cylinder can be removed in [a] simple hand operation, s[aving] time during cleaning and m[ain]tenance.
- New extruder heads and di[e] manifolds which give very [low] resistance to the dough flow, [uni]form dough discharge with [less] waste. Hydraulic die chang[ing fea]ture. Almost no interruptio[n of] production to change the d[ie].

Buhler extruders meet the req[uire]ments of today's macaroni ind[ustry] and their purchase has proven [to be] a safe and good investment for customers all over the world.

Multifood Record

International Multifoods has [re]ported the seventh straight ye[ar of] earnings increases.

Per-share earnings rose to [$] from $3.27, an improvement of 1[?] cent for the diversified food man[ufac]turing-marketing firm who[se] year ended Feb. 28.

Net earnings rose 18 percen[t to] $14,111,000 from $11,960,000.

Sales climed 12 percent to [$] 200,000 from a restated $740,3[?]

Super Bowl

For super pasta products
you need pasta-perfect flour.
That's what you get from ADM.
Pasta-perfect Durum flour and Semolina.
Clear golden.
Clean.
Consistent.

ADM MILLING CO.
4550 West 109th Street, Shawnee Mission, Kansas 66211
Phone (913) 381-7400

p37 June 1975

Good Manufacturing Practices

James J. Winston conducted an interesting and productive three-hour round-table discussion on good manufacturing practices in conjunction with the seminar at North Dakota State University.

The session was recorded and tapes are available for rent or purchase from the National Macaroni Manufacturers Association.

The following outline was used to guide the discussions:

James J. Winston

Modern technology today has advanced to a high level and provides the necessary tools and knowledge to help industry comply with prevailing regulations. In the macaroni-noodle industry, there is nothing the trained food and drug inspector or laboratory scientist can do that the food manufacturer cannot do for himself. Fortunately, with the passing of each year, different companies have assumed more responsibilities by voluntarily augmenting their executive and technical staffs. This helps them cope more effectively with concrete problems such as quality control, production, and sanitation.

Good Manufacturing Practices should take cognizance of the following:

1. Raw materials.
2. Manufacturing and processing conditions.
3. Finished products.
4. Coding and inventory.
5. Additional practices to supplement the Sanitation Program.
6. The necessity for gathering and collating data on microbiological examinations.

Raw Materials

1. Are the processed grains (semolina, durum flour, farina, etc.) and other raw materials inspected upon receipt for rodent, insects or other contamination that would render them unfit for human consumption?
2. Are critical raw materials (e.g., egg products, dry milk products, etc.) received under the supplier's guarantee of freedom from bacterial contamination or are they subjected to bacteriological examination by the firm?
3. Are raw materials requiring refrigeration stored at temperatures of 40°F. or below?
4. Are the raw materials which require storage in the frozen state, held at 0°F. or below?
5. Are all raw materials stored and handled in a manner to prevent contamination or decomposition?
6. Are packaging materials for the finished product stored under sanitary conditions?
7. Are potentially dangerous chemicals (e.g. pesticides, boiler compounds, etc.) properly identified, stored, and handled in a manner which will preclude contamination of the food products?
8. Is the raw material storage area free of any evidence of the presence of dogs, cats, birds and vermin (including rodents and insects)?

Manufacturing and Processing Conditions

1. Do all persons handling food and food contact surfaces wear clean outer garments and hair restraints; maintain a high degree of personal cleanliness and conform to hygienic practices while on duty?
2. Are frozen eggs and other materials capable of supporting rapid bacterial growth used without delay after from storage?
3. Are dead spaces in equipment (e.g. boots, tailing boxes, etc.) routinely cleaned?
4. Is equipment includi g s grinders, dryers, drying r oom tenders, dryer trays, etc , fre any evidence of insect s or dents?
5. Are fans and blowers located operated in a manner which minimize the contamination of food products by airborne taminants?
6. Is the water in contact dir or indirectly with the pro from an approved source (mu pal supply or tested pri source)?
7. Are the contact surfaces of u sils and equipment adequ cleaned on a scheduled basi?
8. Are all food additives used mitted and are their restri for use observed?
9. Is the contamination of the products (raw materials, in-p ess and finished products) av through properly disposing of spillage, scraps, and returned terials?
10. Are handwashing facilities a able in the processing areas?
11. Are potentially dangerous ch cals (e.g. pesticides, boiler c pounds, etc.) used in a m to preclude contamination foods?
12. Is the manufacturing area fr any evidence of the presen dogs, cats, birds, and vermin cluding rodents and insects?

Finished Products

1. Are the finished products pe cally sampled and analyzed bacterial contamination, in ing Salmonella?
2. Is the finished produc st area free of any evidence of presence of dogs, cats, birds vermin (including rodents an sects)?
3. Is packaging adequate to pr contamination of the produ

Coding and Inventory

1. Are the finished products c to identify the day of produ
2. Does the firm maintain an quate inventory control sy which reflects the history of lot from its raw material throu h distribution of the finished product?

tiona Practices To Supplement Sani tion Program

All equipment utilized in the manufacture of noodle products should be dismantled every 24 hours, thoroughly cleaned and sanitized using 200-300 Parts Per Million available Chlorine followed by a water rinse. This is especially applicable to egg-water mixer; holding tank; pumps; doser; dough mixer, and cutter.

"Cleaning-in-place" every 8 hours should be carried out in the egg-water system; pumps; connections; doser, etc. Recommend the use of 300 Parts Per Million of available Chlorine.

Dip solutions should be made available for workers' hands. Iodine solutions containing 15-20 P.P.M. of Iodine are very effective in the destruction of Salmonella and other deleterious organisms.

Liquid soap should be installed in wash rooms with signs on walls directing workers to wash hands before returning to work benches.

Dough in mixers should not be touched by workers' hands; an aluminum scoop with a long handle, properly sanitized, should be made available. This aluminum scoop should be used every 8 hours to remove accumulated dough in mixers which can be a source of bacteria development.

eh. se Inspection
arc

w tructions issued by the a Drug Administration for w house inspection procea ha been disclosed.

a C perative Food Distributors mer convention talk, Thomas , pr ident, American Sanitation ute, t. Louis, said FDA has told spe ors to check for six hazards bre ated inspections. If any vios are found, more thorough s will follow. FDA's checklist, he calls for inspectors to:

1. Determine if there is any evidence of rodents, birds or insects in critical areas, such as near doors, along walls or between pallets.
2. Check for rodent harborages outside of the building, such as tall weeds and grass, junk and trash.
3. Examine up to 10 lots of critical products such as macaroni products, cereal, nuts, popcorn, beans, flour, dried fruit, poppy and sesame seeds for contamination by birds, rodents and insects, either on the outside of the cartons or inside the retail packages.
4. Determine if foods are stored against walls so that inspection of all food items is not possible.
5. Check the salvage or distressed merchandise area as a possible source of rodent and insect contamination affecting other susceptible stored food products.
6. Be alert for misuse of pesticides such as DDT tracking powder, 1080 and insect sprays.

Study FDA Publications

Under new inspection procedures, Huge said, FDA says that "you can't add filth to products in your care." Even if no actual health hazards are discovered, he noted, a judge will be impressed by certain practices, merely as an indication of a poor sanitation program.

Defects causing warehouse prosecutions, in order of importance, are rodents (about 85 percent of prosecutions), insects (mostly weevils in cereal-type products) and birds.

Huge advised wholesalers to get FDA publications citing prosecutions and study them. Most companies have poor warehouse sanitation because they knowingly permit these practices.

One cause of complacency is poor inspections by municipal or state agencies. The difference between these and FDA inspections "is like night and day," according to Huge. Beware of municipal inspectors who don't change from their street clothes, move goods, asking probing questions or spend at least a full day in the inspection.

While conceding that the top executive must delegate authority, Huge stressed the importance of his warehouse sanitation program. Don't abdicate responsibility to outside exterminators, he said. "They aren't responsible. You are." Know what pesticides the exterminator is using and determine if they really are controlling the situation.

Accompany Inspector

During an FDA inspection, he said, a responsible person should accompany the inspector at all times to impress him with the wholesaler's interest and "insulate him from indiscreet comments by employes."

Make corrections while the inspector is there if possible, Huge advised. "Make a big deal of it and show him the correction before he leaves." If the inspector says anything is contaminated, take immediate action to get rid of the product and make sure he knows this has been done.

He also advised asking the inspector for half of his samples so they can be analyzed by an outside lab.

If the wholesaler receives a Form 483, this is a sign there were violations found and prosecution could follow. "It's like a bad report card." Huge said the company can go back to FDA with evidence of good faith in correcting the violation.

Ultrasonic Sound Rat Repeller

Ultrasonic sound ends rat problems! People can't hear it—yet rodents CAN'T stand it! Drives rat gangs out of food processing plants, eating establishments, granaries, warehouses, ship's docks, farms, factory basements, storage areas—and keeps them out!

This new rat repeller eliminates exterminating costs with a permanent solution . . . whereas traps and poisons provide only temporary relief.

Simply plug this electronic unit into any 110-volt electrical wall outlet; starts to work instantly! Operates in all temperatures . . . uses less current than 1000 watt bulb!

The Re-120 Ultrason was specially designed for use in semi-enclosed buildings . . . and anywhere indoors. One RE-120 Ultrason rat-proofs up to 5,000 Sq. feet. It does not require plug-in transducer slave units nor the maze of wires required by others.

This self-contained, electronic rat repeller is solid state, completely transistorized, virtually maintenance-free!

New Pulsating Feature continually produces intermittent blasts of ultrasonic sound that is now more irritating and shocking that ever to the Rats!

RAT-X, 325 West Huron St., Chicago, Ill. 60610

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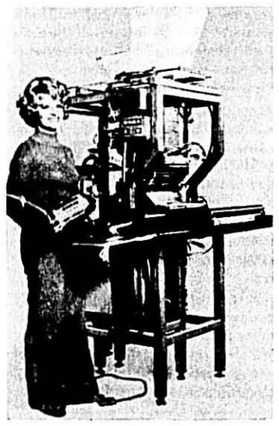
Ambrette Dough Sheet Former with teflon slot die for 20" sheet, 1000 lb./hr. Die-support stand and connecting tubes. Excellent condition. Price $1,500. Call or write A. G. DeFelice, U.S. Macaroni Co., East 601 Pacific, Spokane, Wash. 99202, (509) 747-2085.



P. F. Vagnino, Sr. Dead

Peter F. Vagnino, Sr., 90, retired president and chairman of the board of the American Beauty Macaroni Co., Kansas City, and stepfather of Ralph Sarli, the company's current president, died April 25 at Baptist Memorial Hospital in Kansas City.

Mr. Vagnino was born in Lorenzana, Italy, and had lived in Kansas City for 54 years.

Besides Mr. Sarli, another son of Mr. Peter Vagnino is associated with American Beauty. He is Michael Vagnino, in charge of operations in Kansas City. A brother, Anthony Vagnino, is with the company in Denver and another brother, Louis Vagnino, in St. Louis, was associated with American Beauty until his recent retirement.

Survivors include his wife, Mrs. Micolina Vagnino; a stepdaughter, Mrs. Rose Teicher; another son, Peter F. Vagnino, Jr., San Marino, Calif.; a daughter, Mrs. Eleanor Antonello, Kansas City; the two brothers; two sisters, Mrs. Rose DeScoise and Mrs. Florence DeRose, both of Denver, 13 grandchildren and nine great-grandchildren.

Spaghetti Packer Does It Fast

A completely new spaghetti weighing and bagging machine has been developed that will increase productivity up to 400 per cent. Being fully automatic, the machine greatly reduces labor requirements and speeds up the packaging of 2 through 5 pound bags of spaghetti. By loading directly into pre-formed poly bags, two operators are all that are needed to fill the bulk hopper and receive the loaded bags for tying and case packing. Bags are provided from wickets or loose pack cartons. Ope ation simplified by ease of change over simplicity of maintenance. Up to bags a minute make this inspec machine of considerable in erest macaroni operations now packing larger weight packages.

More information, technical a tance and product evaluation a able from the manufacturer, Nor west Packaging Equip. Co., P.O. 911, Auburn, Washington 98002.

Total Line Appearance

When Kraft Foods' ad for "B Box" Macaroni and Cheese Din runs in June Family Circle, there be a change in the packaging—wh has been redesigned to give the K Dinners a "total line appearance."

Macaroni and Cheese Din Tangy Italian Style Spaghetti Din Spaghetti with Meat Sauce Din American Style Spaghetti Din Egg Noodle and Cheese Dinner, Noodle with Chicken Dinner, Macaroni and Cheese Deluxe Din will all be marketed under the "K Dinners" umbrella.

The June ad for Macaroni Cheese Dinner will carry the theme, "How to Eat Well in S of It All" and "Kraft Dinners M Ends Meet." Consumers will offered tips on the No. 1 inflation cern of Americans—the high cost food. Blue Box, a popular side and an excellent base for varied dishes, costs only about 8¢ per ing when made up "as is," says Kr

Food for Thought

One of California's and the wor most eminent agricultural scientis Dr. Emil Mrak, chancellor emer of the University of Californ Davis, advocates a long-range p to increase our knowledge of food simple but profound proposal: quire our schools to teach course food and nutrition from kindergar through high school. He believes children should learn about food the time the seed is planted or animal conceived until it gets into consumer's stomach.

We endorse Dr. Mrak's propo The more we know about food, it is produced and what is best for health, the better will we be to cope with the problems of feed a hungry world.

a ckaging is more than a Box

n it mes to pasta, the choices are many... spaghetti, vermicelli, lasagna, ziti, and numerous more.

aro
lde
whe it comes to packaging, Diamond Inter- your logical choice. Diamond packaging is designed to provide your product with creative folding cartons, plus labels, streamers shelf-talkers and point-of-sale displays... Diamond can be *your* one-stop, one-source for packaging and merchandising aids.

na

We're in the middle of it all!

DIAMOND INTERNATIONAL CORPORATION

KAGING PRODUCTS DIVISION, 733 THIRD AVENUE, NEW YORK, NEW YORK 10017 AREA CODE: 212 — 697-1700

Okay.
Who put egg in the noodles?

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

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

Enough said. Order your Duregg with a phone call.

Duregg is a registered trademark of International Multifoods Corp.

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