

**THE
MACARONI
JOURNAL**

**Volume 65
No. 1**

May, 1983

632

Macaroni Journal

(ISSN 0024-8894)

MAY, 1983



NPA Packaging Seminar

At the Toronto Hilton, March 21-24, 1983

About one hundred delegates braved winter storms to get into Toronto to hear the state of the art in packaging pasta products ranging from handling short goods and noodles to long goods and case loading. John Curry of the C. F. Mueller Company invited the participants and conducted a fast moving program.

The following speakers appeared and they have printed material to send you from their companies:

Peter Kenford, Asecco Corporation — Automated Bulk Material Handling Systems: From Concept to Installation.

Bill McDonald, Triangle Packaging Machinery — "Packaging in Action" — Selectacom 21 Applications Surpass Expectations."

Dan Jones, Hayssen Manufacturing Company — "Hayssen Ultima — Worldwide Leadership in Packaging and Plastics Machinery."

Joe Stevenson, Pneumatic Scale — High Speed Cartoner and Pouching.

Ted Husak, Clybourn Machine Corporation — Cartoning, Scaling and Filling.

Len Kallerges, Packaging Machinery Company — "Dyna-Pak — Automatic Vertical and Horizontal Case Packers."

Gene Teeter, Meyer Machine Company — "Cut Long Goods Conveying/Distribution System."

George Gullick, Hesser — "Better Packing Solutions from Bosch."

Ken Diegel, Redington, Inc. — Redington Cartoner Coordinates with Hesser Scale System.

Robert Wischhusen, Hi-Speed Check Weighers — "Compu-Weigh — The New Check Weighing Standard."

Ted Trump, International Paper Company — International Paper's Case-form 151; Model 95 Top Case Sealer.

Plant Tours

Trips to Primo Foods, Ltd., and Lancia-Bravo were scored high in the evaluations turned in after the meeting. The meeting content in total also ranked very high with one commentator saying: "Very professional."

The hit of the seminar was the final day's session on Quality Circles.

Beverly A. Scott, Manager, Organization and Management Development, Foremost-McKesson, Inc., gave the background and a presentation "Why Participative Management?, Assessing and Preparing the Organization for an Employee Involvement System." This paper appears on page 18.

Ken Crane and Romi Tujague of National Food Products described their experiences with 115 people in a non-union plant and a year and a half of experience. They emphasized do not have expectations for short run results as this is a long term commitment to improve efficiency and profits and develop happier and more involved employees. They had video tapes demonstrating Quality Circles in their plant.

Marge Gilbert of Friendly Ice Cream coordinates seventeen Quality Circles: twelve in Production, two in Carpentry (they build and remodel many of their own stores), three in the office area. She, too, had tapes to show how the system worked.

Operations Committee Chairman Marco Bonne said another plant operations seminar would be planned for next spring.

Pillsbury Packaging Philosophy

Reprinted with permission Pillsbury Reporter

A package of Pillsbury All Ready Pie Crust looks simple enough. It's a box with two plastic pouches inside, each containing a sheet of refrigerated pie dough. But appearances don't tell the whole story. Pillsbury engineers worked for years perfecting the All Ready Pie Crust package. The result is an innovative container that protects the products.

"Our packages are as good as any in the business, without question," said Tom Cardinal, director of Research for Frozen Foods. "In spiral cans we're number one. Green Giant has been a leader in 'boil in the bag' packaging. In microwave packaging, we've been an innovator and leader in the food industry. And that's really the overall goal of the packaging department — to be a leader in the industry."

The Three C's

Forty persons specialize in packaging at Pillsbury's Research and Development laboratories in Minneapolis — about half of them are engineers. They conceive and develop package specifications for 700 Pillsbury products — everything from basic flour to frozen vegetables.

A successful package should possess the "Three C's," a term coined by Jim Leezer, packaging manager in the Refrigerated division. The "Three C's" stand for: convenience, conveyance and communication.

Convenience refers to ease of opening, dispensing and closing, as well as portion control. "A convenient package consistently performs for the consumer," said Mr. Leezer.

Conveyance refers to the safe moving, handling and distributing of product. According to Ray Tucker, packaging manager in the Frozen Foods and New Business areas, a major challenge is to design packages that will take food products from manufacturing facilities to consumer homes in good condition. That means the package must withstand all the shipping and handling abuse to which a product might be exposed before it reaches consumers' homes. The package must also protect the product from possible contamination.

Communication refers to the graphics or printing on a package that identifies the brand name, cooking instructions, nutritional information and ingredient listings.

Packaging form and graphics also play a major role in motivating consumer purchase decisions. "Inappropriate packaging can throw consumers a curve," said Jon Kemske, senior scientist. "Consumers become accustomed to a certain kind of packaging."

Reducing Costs, Not Quality

Pillsbury packaging staff work in four areas: cost reduction, product line extensions, new product development and quality maintenance.

Cost reductions in packaging are achieved through the Profit Improvement Program (PIP) implemented by the Consumer Foods Group five years ago. "People think of cost reduction as lower quality, but that's not the case at all," said Mr. Leezer. "We look for less expensive ways to produce packages while maintaining the quality."

Continued on page 8

Plant Tours at the N.P.A. Packaging Seminar



Primo Foods Limited



Sal Maritato, Angelo Capozzi, Pat Gabriele



Ralph Maldari, Dennis Greyerbiehl, Peter Dyck, Bob Green



Jim Conors, Ted Husak, Norman Abreo, Romi Tujague



Safe-rite checks Lancia packaging



Chairman Marco Bonne



Messrs. Petaccio, Grassilli, Giannini

Braibanti

is always



- ★ in assuring confidence to pasta factories all over the world
- ★ with the most advanced technology
- ★ because of experience acquired throughout the world

When there is
 "HIGH" Temperature
 to be considered,
 the preference
 of the customers
 is



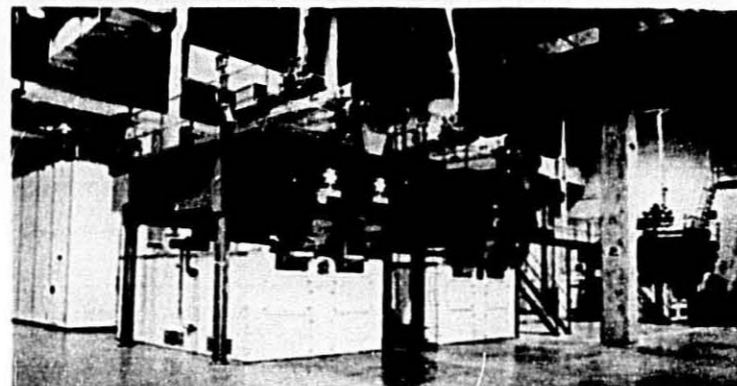
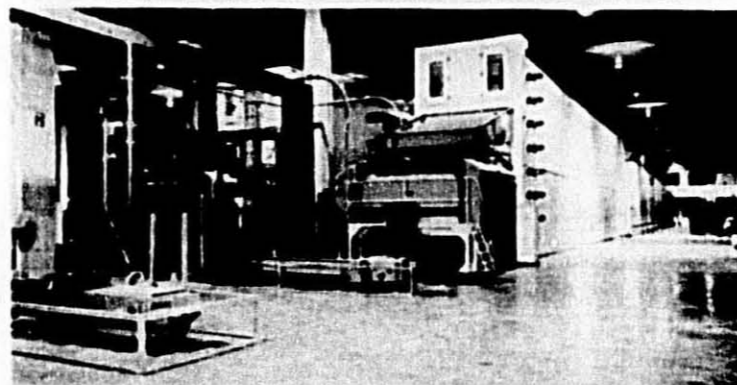
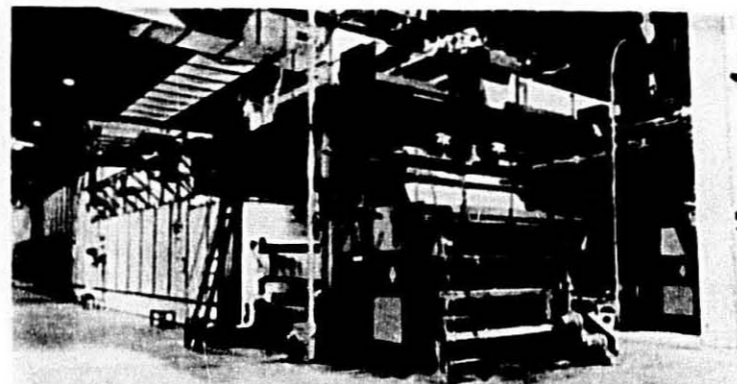
BRAIBANTI "HT" lines

- 48 in ITALY
- 11 in FRANCE
- 10 in U.S.A.
- 8 in JAPAN
- 5 in PORTUGAL
- 5 in SPAIN
- 4 in GERMANY
- 4 in U.S.S.R.
- 3 in VENEZUELA
- 2 in POLAND
- 2 in SWITZERLAND
- 1 in AUSTRIA
- 1 in BOLIVIA
- 1 in CZECHOSLOVAKIA
- 1 in FINLAND
- 1 in GREAT BRITAIN
- 1 in GREECE
- 1 in INDIA
- 1 in IRAN
- 1 in HOLLAND
- 1 in RUMANIA
- 1 in TURKEY

113 of which 53 are for long pasta,
 60 are for short pasta . . .

. . . besides innumerable lines operating at INTERMEDIATE TEMPERATURE

THE MACARONI JOURNAL



View of the
 factory of
 VINCE-LOWELL-U.S.A.
 with
 "HIGH TEMPERATURE"
 lines

Braibanti

OTT. ING. M., G. BRAIBANTI & C. S. p. A. 20122 Milano-Largo Toscanini 1

Braibanti corporation

E. 42nd St. - Suite 2040 • New York, NY 10165 • Phone (212) 682-6407/682-6408 • Telex 12-6797 BRANY •

1983

Pillsbury Packaging

Continued from page 4

quality and in many cases improving it."

The recent introduction of plastic Ready To Spread frosting cans resulted from cost reduction research. The new cans are cheaper to produce than the old aluminum cans, and the overall quality is equal, according to Mr. Leezer.

Designing packages for product line extensions and new products occupies the majority of packaging engineers' time. The same steps for creating a package are used whether it is for a line extension (variation of an existing product) or a new product.

Mr. Leezer cites the All Ready Pie Crust package as an example of "a unique achievement in packaging technology" for a new product.

Idea conception for All Ready Pie Crust began several years ago. Packaging staff went to work as soon as a product description was developed.

Brainstorming sessions produced eight to 10 ideas for pie crust packaging, which were then made into prototypes (models). Two initial ideas were to package the crust on a flat disk like a pizza or roll the crust around a core. Both ideas were rejected for size and economic reasons. "We knew we wanted to fold the crust, but we had to avoid cracking," said Mr. Leezer.

Package ideas that passed preliminary screenings were checked further for their ability to be economically produced on available equipment. The final package design, featuring the plastic pouches, was the culmination of many reviews and discussions involving Marketing, Operations, Research and Development, Quality Assurance and Procurement.

Quality maintenance—the fourth and final area in which packaging staff work, is an ongoing process. Packages are periodically reviewed for adherence to quality standards and improvements are made, if necessary. For example, improvements were recently made in the film used in Boil-in-the-Bag pouches for Green Giant frozen vegetables. The improvement resulted in a significant reduction in consumer complaints, said Don Alverson, packaging section manager in the Dry Grocery Division.

Relations with Suppliers

Mr. Cardinal is responsible for the overall effectiveness of the Research

TRIANGLE PACKAGE MACHINERY

by William B. MacDonald

at the NPA Packaging Seminar

As some of you know, Triangle has been involved in the Pasta Industry since the 1930's. Together, we at Triangle and you in the Pasta Industry, have witnessed an interesting evolution of machine development through all these years.

As it was originally, Triangle is still a family-owned and managed Company. We employ 180 people and manufacture our products in 120,000 square feet of space, in our Chicago-based facility.

We are very much involved in the North American and International Market. We have Licensee Agreements with Companies in Germany and Mexico.

Throughout Triangle's history, "in-house" research and development has always been a high priority.

Our mechanical and electronic development capacity is second to none in our industry. Solid state electronic design is not new at Triangle. For example, our first break through in solid state electronics was back in 1964, with the development of solid state polyethylene sealing controls.

However, in my 15-year association with Triangle, more "electronic break through" development has occurred in the last five years, than all the previous years. This is due to the industrial development of the mini-computer. I would like to talk to you today about two major Triangle developments centered around the mini-computer.

and Development department's packaging function. To help meet that responsibility, he heads a task force of Pillsbury packaging managers.

One of the task force's key objectives is to maintain good relations with suppliers, said Mr. Cardinal. "They will help put you on the cutting edge of technology if you have good relations."

Whatever role computers eventually play in packaging design, Mr. Cardinal says the greatest asset of Pillsbury's packaging function will remain its people "and their ability to interact with other groups both inside and outside Pillsbury to successfully meet packaging challenges."

First—Machine Control and second, a new method of net weighing.

Let's begin with machine control. Through the years, as weight accuracy and production speed requirements have increased, the complexity of machine controls have increased as well. The control complexity from a manufacturer's point of view, was in the utilization of analog electronic logic, with its inherent single control single function circuitry. Unfortunately, these complicated analog controls can be a deterrent to an on-line machine operation. Too many knobs, too many potentiometers, and too many thumb wheels can be mind-boggling to any machine operator.

Additionally, production-oriented management can't justify an "Electronic Engineer" to set up and operate a machine three shifts a day, year-round. Sound about right? We developed a solution.

It's called "System 21."

Our Electronics department went to work, literally behind closed doors. What came out of that Department months later was incredible. The very latest technology in digital electronics appeared on a Triangle. We didn't see any knobs or "pots" or thumb wheels simply because they were not there! What was there was a total electronic mini-computer made up of several microprocessors.

From a machine operator's viewpoint, visually he saw three main operational components: a Keyboard, Video Screen and a Cartridge.

To start up a machine, an operator powers up; instantly the machine begins a series of communications with the operator via the video screen.

It literally tells him what to do.

First, it tells him to insert the cartridge in the slot provided. The cartridge is called an Earom. An Earom is an electronic alterable read-only memory cartridge. Within memory is every electronic setting for a specific product and/or package weight necessary for a production run. Each different product, with its associated package weight, has its own Earom. And, best of all, the memory settings are programmed into the Earom right on the machine.

Continued on page 10

THE MACARONI JOURNAL, 1983

Experience*
Counts
in Flour Handling...



*Over 35 years of worldwide experience

- Computer controlled continuous blending systems assure that accurate blends of different flours and regrind are fed to each press. Each press can receive a different formula—automatically.
- Centrifugal sifters—no dust, no vibration, low maintenance. Different sizes available to handle from 1 to 50 tons per hour.
- Sanitary construction—all crevice free interiors and FDA approved epoxy coatings inside and out.
- Regrind systems—complete storage, grinding and feeding systems for regrind.
- Experienced engineering staff. If you are building a new plant or modernizing an existing one, put our staff of experts to work for you.
- Trouble-free silo discharge—efficient, quiet, Turbo-Segment Discharge Cones for any size silo.
- Dust-free Conveying Systems—efficient utilization of both vacuum and pressure conveying with large filters and dust-free design throughout.



AZO Inc.

P.O. Box 181070
Memphis, TN 38118
(901) 794-9480

Triangle Package Machiner

(Continued from page 8)

An operator can communicate with the machine by means of a keyboard. The keyboard layout is identical to a "touch tone" telephone. We figure if an operator can use a "touch tone" telephone, he can start up and run this very sophisticated machine. The Earom settings transfer into the machine settings when a certain key is touched. In milliseconds, the machine is ready for production.

There is no fiddling with knobs.

There is no tweeking of "pots".

And there is no remembering thumb wheel settings.

The result is a quick start-up which enhances a production run with a higher efficiency. This is all accomplished with one touch of a key.

Most importantly, the machine can communicate with an operator, through a large video screen, right in front of the control panel.

Further, especially for our Canadian prospects, the program can be written in English and/or French. We have just installed a machine in Quebec with this unique feature. We've written a Spanish program for one of our Venezuelan customers as well. Certainly, most languages are available except Japanese, Chinese, or one of the Arabic languages.

But, let's go back a step in the setup of a machine. We're powered up, the video has indicated to the operator that an Earom is to be inserted into the machine. Then this is accomplished, the video then reminds an operator with a visual list of operational/mechanical functions that must be checked.

Functions such as, Machine speed; Bag width, that is, change part size; Film loading; Bag length.

And certain other functions peculiar to the product being run as: Film registration — On or Off, or Static elimination — On or Off.

So, when the operator goes over this "checklist" and is satisfied the mechanical functions are correct for the product to be packaged, the machine is ready to run. The operator now turns a selector switch to run. The machine is now in production, it is that simple.

Perhaps the most important operational function this system features is a security system, designed primarily to protect the machine from mis-

adjustment due to an over-anxious or careless operator. As such, we have divided machine control into three different control levels. Level one is for the operator. Level two is for the line foreman or set-up person, and level three is for management. As an Earom is inserted into the machine, level one is maintained. To enter into level two and three, security combination codes through the keyboard are required.

System 21 features three main automatic operational displays. First, as film nears runout, a microprocessor automatic displays a film low warning on the video screen. This is an adjustable function noted by the remaining bags left on the roll.

Second, if the operator does not change to a full film roll, and the machine runs out of film, the machine will stop not letting film unwind through the machine. If this occurs, the video screen will display: Machine stopped because — Film Out.

Third, if the feed system runs out of product, then the machine will stop and the video screen will display: Machine stopped because — Starved.

Other operational and analytic displays are featured on System 21 as well. These are displayed on the video screen by touching their appropriate keys provided on the keyboard. Touching any of these keys does not disrupt the operation of the machine. We call these keys: Weight duration and cycles/minute key; Weighgard key; Print key; Deviation from memory key; Display Index key.

The Weight Deviation and Cycles/Min. Key

This display features the weight deviation in ounces or grams over the selected target weight. Further, this display indicates machine cycles per minute. If the machine is running too fast or slow for the Earom setting, the display will indicate a high or low cycle rate.

The Weighgard Key

Depressing this key once, displays Weighgard. Weighgard is a statistical analysis of 100 consecutive weights. It is a moving progressive average of these 100 weights. It displays the average weight, standard deviation, the maximum weight, the minimum weight, and their range. Depressing the Weighgard key twice, displays a long-term Weighgard, which is a

"Picture" of the statistical analysis of the entire production, at the time the key is touched. The statistical information categories are identical to short-term Weighgard.

The Print Key

Touching this key activates a printer which produces an 8 1/2" x 11" hard copy on whatever is displayed on the video screen. As you can see it is an easy way of producing a documented printout of all the statistical weight information run during production.

Deviation from Memory Key

Touching this key calls up a unique display. During a production run, an operator on, for example, shift one can make some changes to the control at his security level. If he makes changes, they are recorded in memory. If a second shift operator wants to "see" what changes have been made, he depresses the Deviation from Memory Key. This display "tells" him instantly, each change that was made what the Earom settings were originally, and precisely what the current control settings are.

So, anyone associated with this machine can instantly determine what changes, if any, have occurred from the original Earom settings, and respond accordingly.

Display Index Key

Touching this key calls up a general description of keyboard address. It's like a Table of Contents in a book. Chapter and Verse, it directs an operator in changing control. If an operator makes an error in attempting to change a timing function, the machine interrupts his message and indicates, through the video screen, that there is an error, and what that error is, and even what to do.

As you see, the Triangle System 21 control far excels any other control, available to a package to date. System 21 provides the very best of two worlds. The ultimate sophistication in control, and the ease of operational simplicity.

Which brings me to the second major Triangle development. Improving upon a new method of net weighing.

Soon after the development of the System 21 control, we improved our

Continued on page 13

THE MACARONI JOURNAL

"YOU WANT TO MAKE THE BEST PRODUCT AT THE LOWEST COST, RIGHT?"

That's what our new high temperature long goods line is all about. Interested?

CALL DEMACO FOR ANSWERS. (212) 963-6000

DEMACO

A VITAL LINK IN THE FOOD CHAIN

DEFRANCISI MACHINE CORP. 280 WALLABOUT STREET, BROOKLYN, N.Y. 11206 TWX 710 584 2449

WESTERN REP.: Hoskins Co., Box F, Libertyville, IL 60048 — (312) 362-1031

Triangle Package Machinery

Continued from page 10

An existing method of net weighing called Selective Net Weighing. Actually, that concept was developed in England in the early 70's by a company which packages fish filets. Their problem was this: they had literally dozens of girls trying to select four filets of fish, by hand, in a certain combination, so their total weight would equal one pound. A very clever engineer saw the solution; he designed a system made up of a certain number of scales, each scale weighing one fillet and each scale transmitting its weight into a computer. The computer did a mathematical computation to determine which four scales equalled the one pound. The accuracy was amazing! The labor savings were devastating!

At Triangle, we had all the key ingredients for this new concept of selective weighing. Most importantly, system 21, a proven weigh cell, a very successful product feed system, and a mechanical and electronic engineering group second to none. The results of these ingredients produced selective net weigher which we call Selectacom-21.

In surveying all the computer scale systems available, you can't fail to notice, that all of these systems are arranged with the scales in a radial configuration, except one, our Selectacom-21. Designing a radial scale layout was, of course, an option for us, too, but after studying all the pros and cons from the user's standpoint, we decided to go straight, with an in-line system. The reasons why this makes our Selectacom-21 more than just another selective computer scale, are many.

But, first of all, what you don't see helps make our system possible; that's our high speed Flexitron weigh cell, an instrument with unparalleled accuracies and exceptional correlation to actual weights. In our demonstration, repeated checkweighs confirm the correlation between weight guarantee and weight readout. Any packager considering a computer scale system would want to perform this comparative test, before making a substantial commitment.

The Triangle weigh cell provides another advantage: it can withstand vibration; this means we didn't have to isolate Selectacom-21 from the bag machine with massive legs. It mounts

LONG GOODS FEEDING SYSTEMS

by Eugene W. Teeter, Executive Vice President,
Meyer Machine Company, San Antonio, Texas

The objective of a long goods feeding system is: "to transport cut long goods from the stripper/cutter to one or more packaging lines with minimal labor and product loss."

The method by which we accomplish this is: "a mechanical conveying/distribution system that:

- receives the product from the stripper/cutter
- orients the product
- blends it

- conveys it
- elevates it
- and distributes it to the packaging lines

This type system eliminates the need for manual loading into tote boxes at the stripper/cutter, stacking the boxes on pallets, transporting the pallets to the packaging areas and then hand feeding the product to the packaging machine scales.

A typical layout of such a system would have the product infeed from the stripper/cutter being on the left hand side and the distribution to packaging on the right hand side.

The product is received at the left and then conveyed to packaging. It is then discharged on demand from the packaging machines.

Our layout is a straight line flow in that the product orientation does not have to be changed from the way it discharges from the stripper/cutter.

The first step in the system is to receive the product from the stripper/cutter discharge. This is a critical interface in that the product at this point is somewhat fluffy and hard to handle. Each infeed station must be designed to accommodate the product that is being discharged.

The intake receives product from an over and under shaker. The receiver consists of a dual inlet cascade which accepts product from both shaker levels simultaneously then feeds into a standard cascade. This arrangement also blends the product and blending is something that will be discussed in more detail shortly.

This is only one of many ways of getting the product from the stripper/cutter to the inlet of the distribution system. This is an area that must be designed to fit the circumstances of each application.

The next step is the orientation of the product. This is applicable only when the relationship between the stripper/cutter and packaging requires that the product be turned, usually 90°. This can be done mechanically or by a gravity turner.

A mechanical turning station receives the product from the stripper/cutter, vibrates the product, loads pi-

on top providing a compact, fully-integrated system.

The tip here, however, is remember, checkweigh the computer readout before leaping into a selective net weighing system.

Then there's visibility to consider: with our in-line system, you see the essentials at a glance, with no walking around, to visually inspect the operation. In a similar way, our in-line design is a great advantage when it comes to feeding; our feed system provides a more even distribution for high-speed selectivity.

Sanitation and service are also greatly enhanced. Selectacom-21 is open and easily accessible. The entire forward portion of the machine hinges outward, to let an operator get to all the components from one position. Having a fully-integrated compact system means controls for both scales and bag machines are conveniently grouped where the action is, next to the operator.

We knew just one in-line design wouldn't satisfy all computer scale users, so we offer Selectacom-21 with speeds of 100 packages per minute and beyond, in Twin Tube forms, and as a Fragile Product model. This machine, the Fragile Product machine, avoids free fall transfer points to gently slide product along without breakage.

With Selectacom-21 models perfected and performance proven on dozens of products, we are still mindful that not everyone may want or need a selective computer scale system.

So, we continue to offer a variety of other systems.

We certainly want your machine order, but only if it's right.

Continued on page 14

Long Goods Feeding Systems

Continued from page 13

voting clam shell type buckets which then pivot 90° and load into the distribution system.

Blending and Compacting are the next steps involved in getting the product into the distribution system.

When a stick of long goods is cut, one side consists of heads and the other side consists of tails. The bulk density and handling characteristics of the heads and tails differ. The heads are usually straighter and have a greater bulk density than the tails. These differences can cause problems for the scales if presented in batches of heads, then tails, then heads and so on. By blending the two together it is possible to present a more consistent product to the scales, thus allowing the scales to operate more efficiently.

We also have a dual inlet and gravity turning system with a blending hopper. The product is received into two cascade chutes which then feed into the gravity turners, then into the blending hopper and on to the distribution system. The product is being vibrated at each step along the way to compact it.

The compacting helps to keep the product straight thus making it easier to handle.

The next step in the operation is to load the product into the buckets of the distribution system.

This is done by means of a volumetric loading mechanism which automatically loads each empty bucket with a predetermined volume of product.

Any full bucket which has recycled through the system is bypassed.

The product is then conveyed to the packaging lines and distributed on demand to the scales by means of bottom discharge stations.

Each discharge station is generally equipped with a cascade chute to allow for some surge capacity above the scale.

Each discharge station and cascade combination is designed to maintain constant head loading on the scales. This allows the scale to function more efficiently as opposed to allowing large fluctuations of the product level in the cascades.

We attempt to maintain a high level in all cascades at all times.

As soon as the product drops below the high level indicator, the bucket

BOSCH PACKAGING MACHINERY

by George Gulick at the NPA Packaging Seminar

A word about our company — As you may know, we are the Packaging Machinery Division of Robert Bosch GmbH, a highly diversified German manufacturer of equipment ranging from spark plugs, radios and power tools to TV broadcasting systems. We are an international company with total sales of \$4,000,000,000 annually. If you own a for-

discharge mechanism is activated allowing full buckets to begin discharging at that station. Normally it requires only a few buckets at a time to refill the cascade thus allowing other full buckets to discharge at any other station on demand. This eliminates the chance of starving any one packaging machine.

As with any distribution system, a manual take-off must be provided in cases where the packaging lines are down temporarily, but the dryer must continue to operate. These systems can be supplied with manual take-off stations or bulk pack-off stations to accommodate this.

The unit is an adjustable volumetric pack-off station that allows the operator to pack-off in bulk from five to 30 pounds of product at a time.

This unit can also be used to unload the product into tote boxes to be fed back in the system at a later time.

To accommodate this we can supply a manual re-feed station. Product that is stored in tote boxes can be hand loaded back into the system as required. This re-feed station can also be equipped with an automatic tote bin feeding system.

Each unit is supplied complete with drive and integrated control system usually utilizing a solid state programmable controller.

Each unit built by Meyer is completely shop assembled and tested in our plant prior to shipment.

All wiring and piping is factory installed to insure proper operation and to minimize field labor during installation.

Meyer Machine Company has been building Cut Long Goods Systems now for almost 10 years.

Virtually all we do is bulk material handling. We don't get involved in the peripherals, so we do a distribution system; we don't cut corners.

eign car chances are it is equipped with Bosch components.

Bosch entered the packaging machinery field during the mid-sixties when it acquired Hoeller and Hamac Hansella — two prominent manufacturers of packaging machinery. In the seventies we took over Heffiger & Karg as well as Strunck, a notable manufacturer of pharmaceutical filling, capping and labelling machines. Bosch's largest acquisition followed with the integration of Hesser Maschinenfabrik — one of the world's oldest and largest producers of automatic weighing and packaging machinery. They invented the double package maker.

The entire Packaging Machinery Group within Bosch employs over 4000 people in seven production plants in Germany itself and one each in Holland and Brazil. Distribution is world-wide through a network of agencies and (as in the United States) by direct sales and service organizations. Our company Bosch Packaging Machinery, is located in Piscataway, New Jersey where we maintain a modern facility for displaying machinery and for stocking spare parts.

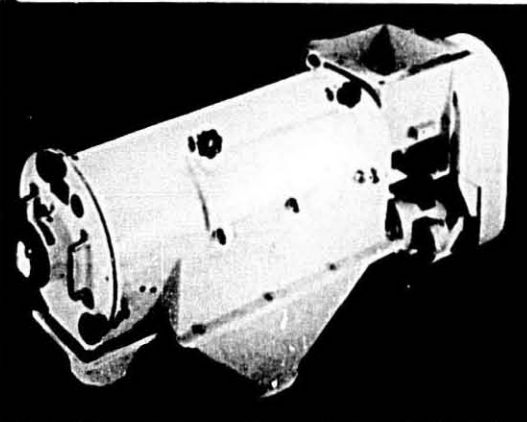
We should mention that Hesser, Hamac-Hansella, Strunck and Hoffig & Karg are all independently acting product divisions within the Packaging Machinery Group. Although the work is divided they compliment each other. Each is responsible for product lines within the broad production program coordinated by the Packaging Machinery Group.

Now for the Machinery

Of all of Hesser's machines one is, we think, of special interest to you as Pasta manufacturers and that is our GEL Electronic Weigher for long goods. This extraordinary net weight handles capellini, vermicelli, thin and regular spaghetti as well as linguine and all macaroni sizes at the astonishing speed of up to 90 deposits per minute with remarkable accuracy. Weights can range from 8 ounces to 3 pounds. As an example of what can be achieved in the way of weight control, the accuracy when running one pound of large macaroni is plus or minus one strand.

Continued on page 16

Flour Sifting



- No Dust
- No Vibration
- Low Maintenance
- Different Sizes for 1-50 tons per hour
- Easily fits into any system
- Sanitary Construction



Call or write:
AZO Inc.
P.O. Box 181070
Memphis, TN 38118
(901) 794-9480

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—Pesticide + Fumigant Analysis.
- 7—Bacteriological Tests for Salmonella, etc.
- 8—Nutritional Analysis.
- 9—Troubleshooting Compressor Oils.

MARVIN WINSTON, DIRECTOR
P.O. Box 361, 25 Mt. Vernon St.,
Ridgefield Park, NJ 07660
(201) 440-0022

BUSINESS OPPORTUNITY

Exclusive franchise in America's most profitable and dynamic industry is being offered for the first time in your area. International company will place qualified individual in "Turn Key" business train key people, provide inventory, finance your customers, and pay you thousands of dollars "up front" on orders where your customers pay only on future energy savings. Existing customers of our franchisees reads like "Who's Who" of Fortune 500.

If you qualify, you will be flown to Los Angeles for a tour of installations and personal interview. Minimum investment of \$29,500 cash required. Call president at 1-800-323-6556, ext. R-137.

FEDERAL ENERGY SYSTEMS, INC.
Suite 200, 336 N. Foothill Road
Beverly Hills, CA 90210

THIS IS NOT AN OFFERING TO SELL

Bosch Packaging Machinery

Continued from page 14

The heart of the system is the weighing cell coupled to a computerized feed back control that constantly corrects itself without any manual adjustments.

This Is How It Operates —

The long goods are fed through cascades to a bulk feeder and a dribble feeder under controlled vibration. The bulk feeder deposits about 90 percent of the product into a bucket at the one o'clock position. As it rotates to the twelve o'clock position it rests on the weighing cell. After being instantly weighed a determination is made electronically as to just how many additional unit deposits from the dribble feeder are needed to meet the target weight. These are then released into the bucket at the eleven o'clock position. If the product weight/volume ratio changes and, as a result, a larger or smaller number of strands have to be added to make up the final weight, then the "memory" device actuates the bulk feed mechanism to either increase or decrease the bulk deposit. The weigher thereby corrects specific weigh variations without manual intervention. In this way highly accurate weights are always assured.

At the present time almost 50 GEL Weighers are installed and operating in the United States and Canada. Most were field synchronized to existing cartoners, others to new ones. One fairly recent installation on the East Coast utilizes three GEL weighers on a high speed cartoner operating at 240 cartons per minute on one pound spaghetti.

Because proper feeding of long goods is essential to a smooth and reliable operation we should report that Hesser can provide proven automatic feeding systems to the electronic weigher or weighers — whether it be from the dryer/cutter installation on the floor above or at the same level as the packaging equipment.

Hesser also offers the Pasta Industry an integrated packaging machine equipped with one GEL Electronic Weigher for wrapping spaghetti in polyethylene or cellophane. This model, known as the USW has an operational speed of 85-90 packages per minute. Two such machines are presently in operation. The USW is

the fastest production wrapper of its kind in the world.

In addition to Hesser, we also offer weighing and packaging machinery from our Hefliger & Karg Division.

Of special interest is the SWLT50 — an electronic weigher for spaghetti and macaroni. It operates at approximately 50 weighings per minute.

Here's how it works: The product is guided downward by gently vibrating cascades. The cascades align the pasta and prevent excessive downward pressure. In the cascade, the product is divided into the main or bulk fill and a small "top up" stream. The bulk fill is deposited into the dosing chamber. This is approximately 80-85% of your target weight. The product is then released onto the weigh cell located directly under the bulk fill chamber. The top up stream is fed horizontally into the weigh pan by vibrating chutes and continues until the required weight is reached. The weighed product is then transferred on to the cartoner or wrapper.

For the wrapping of long goods we also offer the SPM50 — a horizontal form fill and seal machine. This machine can handle all heat sealable films and laminates and is ideally suited for integration into automatic packaging lines.

In operation, the packaging material is drawn up over guide rollers to the forming shoulder. Here the long seam is made. A stabilizer bar comes up as this is being done to support and stabilize the filling tube.

The film is advanced by drive belts to a set of stationary sealing jaws. After sealing, the package seals are then water cooled for strength.

The product is fed into the bottom sealed pouch through the filling tube by a pusher arm. The final seal is made and the pouch discharged to be either bundled or case packed. The SPM50 is rated at 50 pouches per minute and is ideally suited for slow to medium speed lines.

Our Hefliger & Karg Weigher and Wrapper are shown in line with a Bosch, Hamac-Hoeller, Model 1135 Case Packer. The weighed and wrapped pouches are indexed, one at a time, into a pre-programmed pack pattern for each case size. The packed case is then indexed out to be sealed and palletized. There are a number of these lines operating in Europe.

As mentioned before, proper feeding of your product is very important for a reliable operation. Shown are two examples — the SPM50 and SWLT Weigher with an incline feeder conveyor.

Multiple wrapper/weighers can be interconnected and fed either from the same level or the floor above. All systems are engineered to meet your individual needs.

In summary, we are world-wide manufacturers of automatic feeding, weighing, and packaging systems for long and short goods. We have told you about the weighing and wrapping of long goods. It is important to note that we have an entire line of packaging machines for weighing and handling short goods.

Bake It Easy

Campbell's Cream of Mushroom Soup, Swanson Chunk Chicken, and Creamettes Macaroni are tying-in on a "Bake it Easy" casserole promotion with a full-page four-color ad in March issues of Family Circle and four other magazines.

The promotion revolves around several jointly developed "Bake it Easy" casserole recipes. According to sponsors Campbell Soup Co. and the Creamette Co., the recipes are "easy to prepare, a pleasure to enjoy—and economical too." One recipe is displayed in the ad, while two more are featured on point-of-sale take-one pads.

Promotion advertising presents the feature recipe in an appetizing setting along with the participating products, recipe directions and a consumer premium offer of a "Bake it Easy" Casserole Kit—consisting of a 1 1/2 quart Corning Ware Casserole, three free cookbooks and valuable coupons. The premium is offered for \$7.95 plus proof-of-purchase from the three participating products.

In conjunction with the promotion, 24 million 10¢ Swanson Chunk Chicken coupons will appear on Campbell's Mushroom Soup labels, and six million 10¢ Swanson Chunk Chicken coupons will appear on Creamettes Macaroni packages.

A complete line of merchandising materials is available, including take-one pads featuring two free recipes and the Casserole Kit premium offer. Swanson Chunk Chicken and Creamettes Macaroni will both offer merchandising allowances nationally.



On our 80th anniversary of producing extrusion dies for the food industry, we re-dedicate our policy of assuring quality, workmanship, service and extruded results. In the years to come it is our hope that you will take advantage of this tradition and dedication.

D. MALDARI & Sons, Inc.
BROOKLYN, N.Y., U.S.A. 11215
337 THIRD AVE.
Telephone: (212) 499-3555

*America's Largest Macaroni Die Makers Since 1903 —
With Management Continuously Retained in Same Family*

ASSESSING AND PREPARING THE ORGANIZATION FOR AN EMPLOYEE INVOLVEMENT SYSTEM

by Beverly A. Scott, Manager, Organization and Management Development, Foremost-McKesson, Inc.

Presented at the NPA Plant Operations Seminar, Toronto, March 24

Miss Scott has recently joined the Foremost-McKesson Foods Group as Manager for Organization and Development. Previously, she has been a Corporate Consultant for the Bendix Corporation and a Senior Associate with Consulting Associates, Inc., a Michigan-based consulting firm specializing in human resource development. She has had extensive experience in organization and systems change, consulting in the private, volunteer, and public sectors.

Miss Scott is a recognized consultant with national credentials and speaks regularly on such topics as participative management, the Quality Circle process, and other human resource development issues. Her most recent publication is an extensive "How To" manual, co-authored with Ron Kregoski, *Quality Circles*, released by Dartnell in May, 1982.

Since we have known about the significance of employee involvement for at least 30 years, one might well ask why the popular interest today? It is most likely a response to three critical issues: productivity, quality and people.

Productivity: In 1950, it took seven Japanese workers or three West German workers to match the output of one worker in the U.S. Now that ratio is two Japanese workers to one U.S. worker or three West German workers to two U.S. workers.¹ In general, the U.S. productivity rate has not even kept pace with countries normally considered economically stagnant. In fact, before 1990, the U.S. productivity rate will be surpassed by Canada, France, Germany and Japan. Between 1947 and 1967, productivity by an American worker grew an average of 3.1% per year. This healthy growth fueled our standard of living. In the last ten years, however, our productivity growth rate has fallen to 1.6% growth per year and, indeed, in 1980, it dropped 1.4%.² At a time when the Japanese economy is growing by leaps and bounds, the U.S.

began to take a look at what impacts productivity.

Quality: Joseph Juran, the international quality control expert, has stated that the Japanese hold a clear edge over the West in product quality. Indeed, their superiority in product quality poses unequalled competition to the West from Juran's perspective. He believes unless Western corporations take prompt and drastic action to improve product quality, there will be inescapable major industrial casualties. This challenge has been demonstrated repeatedly as the Japanese have clearly established their superiority in product areas such as electronics and automobiles. Juran's advice, then, includes the message that to meet the Japanese challenge, top management must take an interest in quality and communicate with all of the people in the organization.

People: Our Changing Workforce. Quality and productivity are related not only to economic issues, but to social issues. Unfortunately, the social and the economic are often polarized and placed at opposite ends of the organizational spectrum. From research and opinion surveys, we know that employees aspire to an improved life at work and employers aspire to advanced productivity and improved quality. To separate these two goals ignores the dynamic interaction of people and production. Yet, the human factor in the productivity and quality continues to remain illusive. Some characteristics of our workforce may expand our understanding.

• **The Baby Boom Bulge:** We have a workforce today that is demographically characterized by the bulge of the Baby Boom. Over 40% of our hourly workforce is under 35. The bulge in that workforce today is between 25 and 34 years of age! soon it will be between 35 and 44.³ Because of the bulge, members of this workforce will be increasingly confronting the limited number of positions

available to them as they move up in the hierarchy.

• **New Work Values:** Daniel Yankolovitch has said, "In the 1960's the search for new meanings was largely confined to young Americans on the nation's campuses and was masked by the political protests against the war in Southeast Asia." Today the search for the full rich life, ripe with leisure, new experience, and enjoyment has spread beyond the college campus to the plant, corporate offices and all work places. A full 80% of the population is searching, in one way or another, for self-fulfillment — not the self-improvement definitions of the past, in terms of working for material well-being, family life, accumulating symbols of respectability, all based on the ethic of self-denial; but the object of the creative energies of the self-fulfillment seekers today is the self-search for satisfaction, self-fulfillment, and something meaningful to work for.

• **Women in the Workforce:** Today over 50% of American women work for pay outside the home. Families are deciding not to have children or postponing parenthood. It is increasingly acceptable for women to be in the workforce; indeed, Yankolovitch found only 20% in the late 1970's disapproved of women earning money if she had a husband capable of supporting her.⁴

• **Racial Cultural Diversity:** Our workforce is increasingly culturally diverse with ethnic and racial minorities receiving opportunities to leave ghettoized job classifications and move into professional and managerial ranks. Indeed, from 1960 to 1976 the black professional ranks increased from 4.8% to 11.7%, compared to an increase of 12.1% to 15.7% for white professionals.⁴

• **Education:** Our workforce is increasingly educated. In 1940 only

Continued on page 20

THE MACARONI JOURNAL

Pasta! Today's All-American food for fun. A powerhouse of nutrition in all shapes and sizes. High in energy-producing carbohydrates. Lower in calories than any popular weight-control foods. A reliable source of iron and hard-to-get B-complex vitamins. *Pasta!* Elegant enough for gourmet tastes.

Light enough for America's new fitness generations. *Pasta!* Made best from Amber Mills Venezia No. 1 Semolina, Imperia Durum Granular or Crestal Fancy Durum Patent Flour. Make sure your pasta products are as fit as the crowds they feed. Shape 'em up with Amber's pasta performing ingredients.



AMBER MILLING
Mills at Rush City, Minn. —
General Offices at St. Paul, Minn.
55165 / Phone (612) 641-3796

America is getting into shapes.



Employee Involvement

Continued from page 18

one in 22 workers was college-educated; today, it is one in four. Workers are increasingly educated six to seven years post-high school. They are trained to think, to be critical, and not to automatically accept directives and objectives from their bosses.

• **Job Dissatisfaction:** Today's workers rebel against work methods seen as destructive to their health or to their self-respect. There is a growing alienation expressed in rising turn-over rates, absenteeism, theft, sabotage, and personal abuse — drug addiction, alcoholism, feelings of frustration. Alienation has been called the non-work ethic and has been increasing in post war decades. A nationwide poll that has been done every year since 1973 indicates job satisfaction in the American workforce has declined consistently each year. Many studies show that workers want more than just pay and benefits; they want esteem, equity, respect, and they want to work to achieve personal goals.

• **Rights:** As a result of the Civil Rights Movement and the Women's Rights Movement, increasing numbers of workers are aware of their rights in the workplace: that they don't have to automatically respond to demands and orders from their boss, and that they do not have to take health and safety risks. Indeed, workers are also pushing for their rights to be involved and to participate. The Institute of Social Research found that two-thirds of those studied felt that they had a right to be more involved in the decision making process.

What Do People Want in Their Workplace? The demographic characteristics, the new values, and increasing job dissatisfaction brings a workforce that wants and expects different benefits from their jobs. These expectations can be described as follows:

- 1) the opportunity to grow, learn, and advance
- 2) the opportunity to influence the decisions that affect them
- 3) cooperation and teamwork to get the job done — not competition and individualism
- 4) attention and self-esteem which grow out of interaction, open

communication and trust

- 5) treatment with respect and dignity, not just material rewards
- 6) and they want these benefits now, not on some day in the future

These expectations and demands from the work force lead concerned managers to ask, "How can we more effectively meet these needs?" Or to put it another way, "How can we improve the quality of life at work?"

Quality of Working Life: What Is It?

There are many perspectives: The only way to operate the business . . . Making better decisions . . . Working smarter . . . Obsessive attention to people . . . Democracy at work . . . Management style . . . Labor-management cooperation . . . Human dignity and respect.

The characteristics of a good quality of life at work can best be summarized by these six points:

- 1) Sensitivity of people's needs: A recognition of employee's personal, social, and emotional needs and flexibility within the organization to allow individual differences to be met.
- 2) Effective challenging work: Opportunities for new learning, growth, and development, increased responsibility and accountability, expansion of job duties, and increased involvement in planning and execution of work responsibilities.
- 3) Involvement in decision making: participation and influence in broad decisions affecting employees; opportunities for decision making in one's own work area; and access to information needed to participate in and make decisions.
- 4) Control over one's own work: Influence and participation in decisions impacting one's own work goals, project timelines, or work flow processes; sharing and feeling responsible for problem solution with enough authority to carry out the results.
- 5) Shared information and goals: Information about work, the organization, and the business commonly shared up and down the organization; opportunities to discuss and formulate common work group goals which

support the organizational effectiveness.

6) An atmosphere of respect and trust: Feeling as if one is a significant part of the organization, that one is listened to and recognized as a contributor to the operation. It includes an atmosphere of collaborative spirit working together with concern and dedication.

Many companies are addressing the expectations of the workforce and the productivity/quality challenge by tapping the creativity and potential of their employees through employee involvement efforts.

Implementation of Employee Involvement

There are many ways of structuring employee involvement such as autonomous workteams, employee task forces, temporary problem solving teams, suggestion groups, and quality circles. Regardless of which approach is used, the process of assessing planning, and preparing the organization is similar. I am going to use quality circles as the example of the process. Let's begin with a book definition to distinguish the structure of a quality circle from other employee involvement structures.

The Quality Circle is a small work group of volunteers who meet regularly, usually one hour per week, to address problems which they identify from their own work responsibility.

The Quality Circle is distinguished by the following characteristics:

- Is a small group of employees who are interdependent and are generally from the same work group and/or working at a related task or on a related product (include workers, supervisors, union representatives, etc.)
- Meets voluntarily on a regularly scheduled basis on paid company time
- Discusses the quality of work related problems
- Determines what problems they want to discuss
- Receives training on techniques of problem solving including group decision making group process, data gathering and analysis, identification and selection of solutions, and making presentations
- Identifies problems, investigate causes, and recommends solutions

to the most senior, decision-making body within their work system, i.e., a plant operation committee.

- Implements corrective action within the authority under their control
- Has commitment from management
- To provide access to resources within the system, including charts, cost data, process sheets and communication with internal experts such as industrial engineers, cost analysis, quality assurance, etc.
- To provide on-going support from the vertical management system, i.e., often attend Circle meetings, receive minutes, promote programs, provide assistance when requested, etc. To respond to Circle suggestions and implement solutions where possible

Charts 1 and 2 depict the organization where Quality Circles are integrated throughout and the membership of the typical Quality Circle.

CHART 3

PREPARATION & TRAINING

Who's Involved

Steering Committee

Management

Management QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

QC Coordinator

What's Included

• Clarification & establishment of policy

• Development of plans

• Participative management

• Employee involvement techniques

• How a QC system works

• How to set up in your organization

• Administering & coordinating a QC system

• How to train QC leaders & members

• Participating leadership

• How to work in groups

• Problem selection techniques

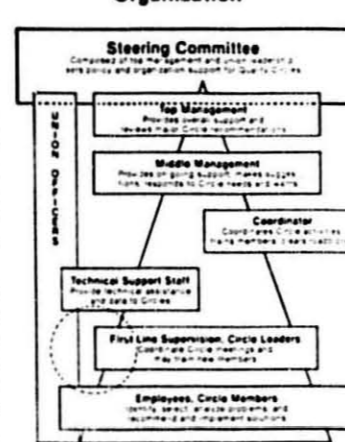
• Data collection techniques

• Data & problem analysis techniques

• Making solutions

• Making presentations

Quality Circle Organization

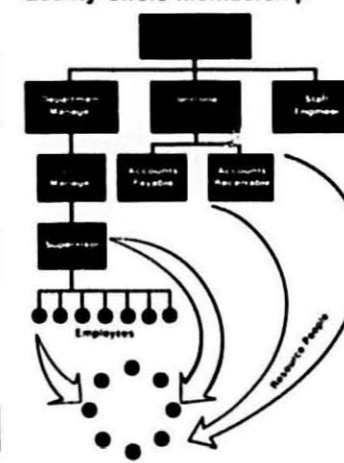


Stages of Implementation

It is important to emphasize the value of following a thorough and planned process of implementation. Too often a step is skipped with less than successful results. Below is an outline of the stages with key steps in each stage.

1. Awareness/Education
 - Presentations, seminars, workshops, reading, discussions
 - Understanding key concepts
2. Assessment
 - Management understanding?
 - Employee interest in involvement/participation?
 - Union support?
 - Middle management encourage participation?
 - Staff and managers willing to share operational data?
 - Realistic expectations?
 - Stable competent work groups?
 - Conflicts with other policies, procedures, programs
 - Willingness to invest time and money to make it work
 - Past experiences with "programs" or "projects"
3. Planning
 - Formation of committees or councils
 - Develop plan for pilot effort
 - Identify and request needed

Quality Circle Membership



The Circle's primary membership refers to the voluntary employees and their supervisor who acts as the Circle leader. A secondary, temporary membership includes staff personnel or other Circle members who are invited to join a Circle to work on specific problems. They are selected by the Circle because they either have a technical expertise which is needed or because they may also be involved in the problem under employees in some way.

resources

4. Preparation and Training
5. Implementation
 - Implement pilot
 - Monitor progress
 - Keep management informed
6. Integration
 - Provide structure
 - Maintain accountability
 - Keep it visible
 - Involve non-members
 - Use discipline and practice in problem solving
 - Continue management and union development and involvement
 - Make it count
 - Documentation
 - On-going training and development of Circle Members
 - Expanded management use of Quality Circles
7. Evaluation
 - Measure and report Circle project results
 - Record and utilize administrative documentation
 - Survey attitude changes

What Makes for Success?

Organizations experienced with Quality Circles and employee involve-

Continued on page 24



Peavey



AGRIUM

AGRIUM

What Makes for Success?

Continued from page 21

ment do not view these efforts as a packaged program dropped into the company to solve a productivity or quality program. Instead, their experience suggest that the keys to success come from commitment, sharing, collaboration, and training. Employee involvement results in organizational change which suggests these guidelines:

- 1) Take a systemic approach and build a participative management style into the organization systems.
- 2) Be willing to risk change.
- 3) Place emphasis on enhancing employee development, not business results.
- 4) Be flexible in planning — take time to work out the bottlenecks.
- 5) Provide sufficient training and develop the skills which will apply the principles.
- 6) View the changes as a process not a program. It has momentum, a dynamic on-going way of life for the organization.

Management has a significant role to play in this process by providing broad top support and significant involvement of the middle levels. Management should model a participative approach in their own behavior, as well as be competent managers. The role of supervision in the organization is also significant for success. It is important for supervisors also to model a participative approach in their behavior and to encourage and develop employee leadership. Supervisors must allow voluntary participation and recognize employees for their contributions. It is key that employees be reassured that their contributions will not lose them jobs or they will be reluctant to become involved. Supervisors, too, must keep their managers involved and informed and practice effective supervisory techniques.

In attempting employee involvement efforts, there is no doubt that it is important to avoid pitfalls that other organizations have experienced. Below is listed a summary of advice offered by experienced organizations and managements:

Pitfalls to Avoid

- A. A low management commitment to employee involvement and

to participative management styles.

- B. Management which is not involved in the planning process, but rather it is delegates to a staff functions such as quality control or personnel.
- C. Failure to establish an active Steering or Policy Committee.
- D. Managers attempt to control or influence Quality Circles or other employee groups.
- E. Failure to involve union leadership.
- F. Failure to develop support and commitment from middle managers.
- G. Inadequate training of managers and supervisors in participative leadership skills.
- H. Management expectations that employee involvement is a panacea for a multitude of organizational problems.
- I. An organizational atmosphere in which open communication and trust are undermined.
- J. Failure of management to respond positively and promptly and with encouragement to employee involvement activities and recommendations.

Conclusion

Employee involvement is based on these assumptions:

- That people want to contribute.
- That people are experts at their own jobs.
- That this expertise should be tapped.
- That better actions and better decisions will be the result.

In closing, I leave you with this thought from the American Productivity Center: Assets make things possible, but it is people who make them happen.

References

1. Roger Calhoun, "The New Work Ethic," *Training and Development Journal*, May, 1980, pp. 127-130.
2. Robert Cole, "Made in Japan — Quality Control Circles," *Asia*, May/June, 1979.
3. *Business Week*, May 11, 1981.
4. Daniel Yankolovitch, *Psychology Today*, April, 1981.
5. *Ibid.*
6. Rosemary Erickson, "The Changing Workplace and Workforce," *Training and Development*, January, 1980.
7. *Ibid.*

FAMILY BUSINESS COLUMN

by Frank M. Buttrick,
Akron, Ohio

In all my writing and conventional presentations on the family business, I stress the idea of an independent department, a product line, a branch or a subsidiary for the able and ambitious son. Yet other writers, speakers, and consultants in the field do not mention this point; why, then, do I? You are busy running your business, the very thought of the complications and problems attendant upon creating a separate venture for your son can hardly make the concept welcome, particularly if you expect your son to give you much-needed help in the daily running of your business as it is.

In fact, the idea runs contrary to what a father assumes and should expect — that his son or sons join him in his business, learn, head up departments and help run it, and eventually take over. So why bring a son into the business if you should then push him off into an independent operation? Is this really a good thing to do — and, if so, how important, really, is this idea of an independent command for your son? Worse yet, for sons?

To put the concept into proper perspective, let us examine a couple of firms where no such arrangement exists — and then consider the future of your son (and yourself) with the follow-me-my-boy system, which is so prevalent as to be almost universal.

Case History No. 1

A major manufacturer, founded in 1913 — 68 years ago — by a hard-driving, ambitious young man who is now 93 (1) is still chairman of the board, in nearly perfect health (too busy to be ill) and is not only active but at work every day in full command of the business. He has thought about retiring, occasionally, for over 30 years, but he knows that his son is a "man enough" to run the company.

His son is now 67, president of the company and a well-known and widely respected civic figure, very active in social affairs, charities, and business circles, on the board of a number of corporations, two country clubs, innumerable charities, and one yacht club. He works, too — what he has time — but he gave up ever-

PART XI WHAT IS YOUR AMBITIOUS SON GOING TO DO DURING THE REST OF YOUR LIFE?

having any useful authority in his father's business two decades ago.

The grandson is executive VP; highly educated, he was something of a playboy in his early twenties but now at age 37 is a faintly amused (disapproving? grudging?) admirer of his grandfather and (unconsciously) very much his sort of man — a hard-driving, ambitious person, perfect for keeping the company moving ahead under his grandfather's restless and never-satisfied direction.

And there is a great-grandson, now 18, who has worked summers in the business for 3 years. A shrewd and humorless boy with a computer-like mind, he and his father play mathematics games as other father-son teams play baseball or chess. Their games are trying to stump each other with challenges in sales forecasting, business appraisals, acquisition tactics and market analysis. Their intent is obvious — the great grandson is being groomed to spearhead an explosive expansion in two or three years (his great grandfather is impatient, and expects him to decide that college is a waste of his talents).

Observation:

For three of these men the business is an endless challenge and fascination. For the founder's own son, it has been a useless and wasted life; his father was much too busy to be a father, too distracted to be a teacher, too much a one-man band to delegate any worthwhile responsibility or authority. Thrust aside by his father's momentum, he turned outside the firm for something which could make him feel useful and important. He discovered that his father had taught him the rudiments of leadership, organization, decision-making, even common sense.

But he was welcomed everywhere, not for what he was, but for WHO he was — the heir to his father's business, name, and fortune. So accepting life with a shrug, he became a pompous, vaguely amusing man, a far-from-unique, but quite useless son of a highly successful businessman. Had the founder retired or died (at any time within the last 15 years), his son could not have run the business — his best would have been a mildly

harmful caretakership while the firm became a nest of politicians and bootlickers, all playing up to Junior, trying to gain his favor by fawning over him. For this man, the waiting game was his ruin, if ever had any business ability or potential, it rusted away years ago.

Case History No. 2

A machinery builder, but here the founder and father of three sons, retired when his health failed during his late 60s. Since then (seven years) his eldest son has been president. The founder brought all his Sons into the business after college and advanced them quickly to department heads — the eldest was treasurer at 36, the next sales manager at 40, and the youngest chief engineer at 36. The treasurer became the president when he was 42, after six years as a competent financial man; now 49, he is in good health and can look forward to some fifteen or more years as president, even if he retired relatively early.

But his brothers are equally ambitious — and their future is not so bright. The second is now 47; he is a good sales manager, but if his older brother does retire at 65, he would be 63 when he took the presidency, with only two years (until 65) to shift his thinking from departmental to corporate, only two years to put his mark upon the firm and to see if he has the ability to run the firm. The youngest will have a little more time, since he is four years behind his brother. But engineering is a technical science, quite unlike marketing or financial management or even production. What are his chances, at age 61, of shifting from his life as an engineer to a four-year tenure as president? And what can any of these brothers promise to their own sons?

Observation:

When a father is 50 and his sons are 30 or so, it seems like a great idea to have a team of sons heading up departments and extending their father's personal control across the company; and when choosing between a competent son and an outsider, it is natural to select the son. Keeping the control in the family, so to speak,

But eventually the father will step aside, and what happens then? Who becomes president when all the sons are reasonably competent men? Should the eldest son get the position, merely due to the relevant accident of his birth date? Even if that is the easy way out for the father, what of the other sons? Are they to be denied a chance at the helm or made to wait until they are so elderly that they could hardly be expected to get on top of the new job?

No. Better by far to be the reasonably independent general manager of a subsidiary within the family-owned corporation, than to have to play king-of-the-mountain with one's brothers, all hoping to have a crack at the same job.

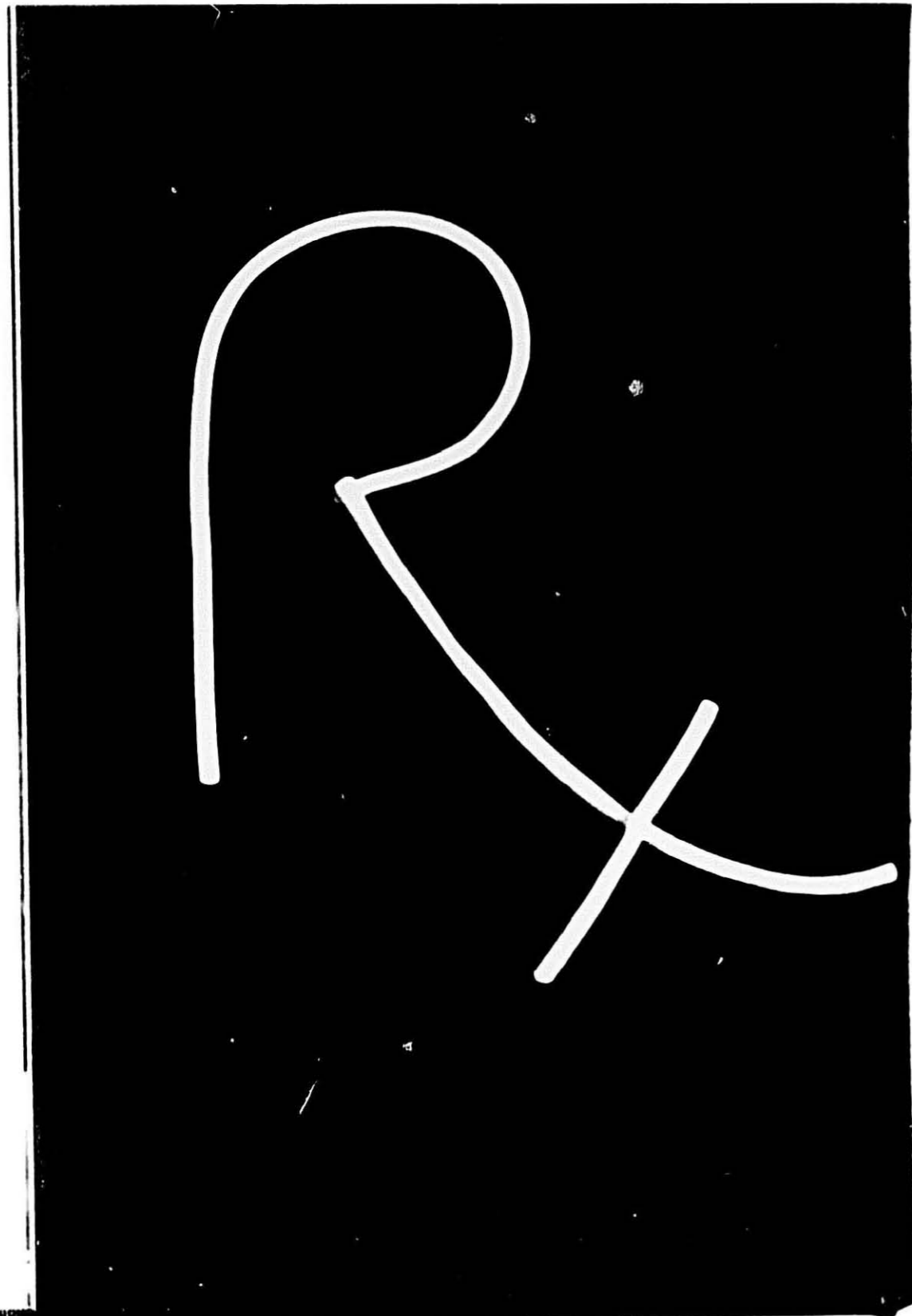
Comments:

It is not enough to shrug and say that a man working for a major corporation also takes his chances on getting to the top, or that he must wait until he is into his 60s even if he does get there. The family business is completely unlike any one of those major, public corporations.

First of all, the sons are the owner's flesh and blood, there is no element of chance — if they live long enough (and the firm survives) they will get to manage the company. Second, a large business has a number of rungs to be climbed, and there are many eager men scrambling to find a place on the ladder. There is no such competition in the family business (except among brothers), and there are very few rungs. You are at the top, the employees are at the bottom, and in between are your sons — regardless of their titles. So they learn a job, then are expected to hold it for decades while waiting for you (and any older brothers) to retire. By that time, if you have kept them in line and reserved the major authority and decision-making to yourself (as is typical), the average son could not run a popcorn wagon.

The family business is a waiting game for the son. Just look at the arithmetic: To start with, very few things guarantee surviving to a ripe old age as certainly as does being a

Continued on page 28



Pasta Prescription

Prescribe pasta. It could reduce the risk factors associated with coronary heart disease.

How does this relate to pasta consumption?

...not
is ... not

Pastas – let's tell it like it is.

ADM

ADM also supplies quality shortening, ...
... proteins, dough conditioners and vital wheat gluten
for the baking industry.

Family Business Column

Continued from page 25

founder of a business. First of all, you are too busy to become sick, and there are too many details in your head to leave much room for worry. If you are 25 years older than your son, and manage your firm until 70, he will be 45 when he takes over — after running one corner of your business for some twenty years. And the chances are that you will leave the ownership to your widow in your will, and she will pass it on in neat little pieces spread among your children. You may well be the only man who ever had both the top job and the authority to run it.

So give your son a break — and give yourself the fun and pride of seeing his ability grow. Set him up to run something, so he can learn presidenting the only way it can be learned — by doing it while he is young enough and enthusiastic enough to work it out as he goes along.

NEXT MONTH: How Does Your Son Learn To Run The Business? His true job is learning your job. All else is merely to justify his paycheck. So next month we start him on the road to becoming a competent successor.

This article is condensed from a chapter in the author's book, **THE FAMILY IN BUSINESS**, released by the IBI Press, Box 159, Akron, OH 44309.

Director of Engineering

Charles R. Hawkins has been named Director of Engineering of San Giorgio-Skinner Company. Joseph P. Viviano, President and Chief Executive Officer, announced recently.

San Giorgio-Skinner Company is the pasta division of Hershey Foods Corporation. Hawkins will be based in the division's Louisville, KY offices.

In his new position, Hawkins will be responsible for division-wide engineering needs as well as engineering responsibilities at the Louisville plant, including developing and planning, maintenance planning and procedures, energy conservation and cost reduction.

Hawkins previously served as Director of Factory Engineering and Maintenance at Porcelain Metals Corp., Louisville, KY. He has also held positions with Tube Turns, Louis-



GOLDEN GRAIN SCHOLARSHIP GRANT WON BY PALPS EMPLOYEE

Kathleen Leibing (center), Los Angeles, an employee of Ralph Grocery Co., was named winner of a one-year scholarship grant to the University of Southern California. The \$7,350.00 grant was made by Golden Grain/Ghirardelli Foods. It is for study in the Food Marketing Management Program in the University's School of Business Administration. "Young people who demonstrate an aptitude for management responsibilities in the food business deserve the support of the industry," said Tom DeDomenico, Executive Vice President of Golden Grain, who announced this award. "We are glad to help outstanding young men and women in advancing their careers." Presenting the award is John Palazzo (left), Divisional Sales Manager of Golden Grain in Los Angeles, who said that this year's grant marks the third consecutive year of the Golden Grain/Ghirardelli participation in the scholarship support program. At right is Henry Hartfield, Golden Grain Account Manager. Scholarships are offered to employees of retail or wholesale food distributors eligible for membership in the Western Association of Grocers of the United States, Cooperative Food Distributors of America, National-American Wholesale Grocers Association, National Association of Convenience Stores or voluntary associations.

ville; Edgewater Steel, Oakmont, PA; and Jones and Laughlin Steel Corporation in Hamond, IN, and Pittsburgh, PA.

An Alexandria, VA native, Hawkins has a bachelor of science degree in mechanical engineering from Carnegie-Mellon University, Pittsburgh. He is a member of the American Society of Mechanical Engineers.

Cargill Reorganizes Flour Milling Unit

Cargill will reorganize its Flour Milling Division into three decentralized regions and move the division headquarters from Kansas City to Minneapolis by November 1, according to Gerald M. Mitchell, group vice president of Milling.

Regional offices will be established in Albany, NY, Chattanooga, TN, and Wichita, KS.

Moving to Minneapolis will be Fritz Corrigan, president of the flour mill-

ing division; Jack Burkhalter, manager of operations; John Lyles, controller; Lin Lundgaard, who has been promoted from senior sales manager, Seaboard Department, to division sales manager, and Charlie Cortella, who has been promoted from transportation manager, Seaboard Department, to division transportation manager.

"This reorganization will make us more effective managers of our business," said Corrigan. "It will enable us to be more efficient suppliers and to provide greater opportunities of growth for the people in our division."

Corny Boersma, account manager of the Cargill soybean plant in Sidney, OH, will become Northeastern Region manager in Albany. John LaSpina, senior sales manager with the Flour Milling Division in Kansas City, will be senior sales manager in Albany.

The Northeastern Region includes flour mills in Albany and Buffalo, NY, and Culpepper, VA.

DRYING TEMPERATURE

When talk about pasta production turns to drying temperature, no one talks alike.

Some talk about low temperature. Some talk high temperature. Some even higher temperatures. And some talk microwave.

At Buhler-Miag, we only talk about the right way to produce top-grade quality pasta on high performance equipment. We talk about energy-efficient designs that produce drying temperatures as high as necessary, not as high as possible.

Contact us for information on our complete line of pasta processing equipment.



BUHLER-MIAG

P.O. Box 9497, Minneapolis, MN 55440 (612) 545-1401
59 Curlew Drive, Toronto, CANADA M3A2P8 (416) 445-6910





Andre Gillet

Cargill Reorganization

Continued from page 28

Mike Urbanic, account manager for high fructose corn syrup at the company's corn milling plant in Dayton, OH, will become the Southeastern Region manager in Chattanooga. Dan Dougherty, bakery, institutional and family flour sales representative in Kansas City, will be regional sales manager in Chattanooga.

The Southeastern Region includes flour mills in Chattanooga, Jacksonville, FL, and Port Allen, LA.

Pat Thiessen, administrative manager of the division, will move from Kansas City to Wichita to become Western Region manager. Hank Sumpter, senior sales manager, Sea-board Department, will be senior sales manager of the region and will continue to be based in Kansas City.

The region includes flour mills in Wichita, Topeka, Newton and Wellington, KS, and Saginaw, TX, and a bulgar plant in Dallas, TX.

Multifoods Elects New President/Vice Chairman

Andre Gillet has been elected President and Chief Operating Officer of International Multifoods, and Darrell M. Runke, Vice Chairman of the Board, effective March 4, 1983.

Gillet, 58, born and educated in Paris, France, joined Multifoods' New York office in 1951 as an export trainee. In 1958 he moved to Venezuela as General Sales Manager of the Company's Venezuelan operation, Molinos Nacionales C.A. (Monaca), and in 1962 was promoted to Manag-

ing Director. Returning to Minneapolis in 1968, Gillet's duties were expanded to include all Latin American operations. In February, 1969, he became Vice President and General Manager of the International Division. Since 1979, when he was elected Executive Vice President of Multifoods, he has assumed additional responsibilities for U.S. Industrial Foods, Consumer Products, and Fast Food and Restaurant Divisions.

Gillet is Chairman of the International Council of the Conference Board, and a Director of the French-American Chamber of Commerce and the Guthrie Theatre of Minneapolis.

Runke, 63, has served as Multifoods' President and Chief Operating Officer since 1973. He was elected a Director of Multifoods in 1968. During his 31-year career with Multifoods, he has held various positions with the Agricultural Products and International Divisions before being named Executive Vice President in 1970.

Mr. Gillet also was named a director, as were Robert M. Price, president and chief operating officer of Control Data Corp., and Judy Corson, a partner and co-founder of Custom Research Inc., a national marketing research company based in Minneapolis. They increase the board to 11.

Board of Directors, U.S. Durum Growers Association

Monroe Scheffo, Bottineau, ND, President
 Jerry Theusen, Reserve, MT, Vice-President
 DuWayne Tessman, Goodrich, ND, Sec-Treasurer
 Richard Voss, Andover, SD
 Richard Crockett, Fargo, ND
 Lyle Olson, Kloton, ND
 Miles Ophaug, Kloton, ND
 Herb Olson, Langdon, ND
 L. A. Braunagel, Devils Lake, ND
 Eugene Nicholas, Cando, ND
 Patrick Kavanaugh, Crary, ND
 Ron Barks, Egeland, ND
 Alvin Kenner, Leeds, ND
 Charles Lindseth, Silva, ND
 John Wright, Webster, ND
 Norman Weckerly, Hurdsfield, ND
 William Ongstad, Mandfred, ND
 Lawrence Scheresky, DesLacs, ND
 Wesley Tossett, Lansford, ND
 Harold Hofstrand, Leeds, ND



Darrell M. Runke

Italgrani U.S.A. Reorganized

Italgrani U.S.A., Inc., has completed a major reorganization at its Minneapolis executive offices, it was announced by Anthony Della Selva, executive vice-president.

Mr. Della Selva said the changes were made to accommodate expansion of Italgrani's role as a domestic and international grain merchandising company and to strengthen the company's management team for further growth in non-grain businesses. While not specifying these businesses, Mr. Della Selva said the reorganization was finalized during meetings in Minneapolis with Francesco Ambrosio, Naples, Italy, owner of Italgrani.

Mr. Della Selva said that Finley Jones join Italgrani March 1 as senior vice-president in charge of domestic and international marketing. Formerly a vice-president and senior trader of Peavey Company, Mr. Finley will coordinate all trading activities of Italgrani's U.S. operations.

John Miller, who joined Italgrani last May was named senior vice-president for Italgrani and its U.S. subsidiaries. Mr. Miller joined Italgrani from The Pillsbury Co., where he was in accounting and finance.

Frank Simmons was named vice-president in charge of a newly-created feed ingredient group. Mr. Simmons currently heads Italgrani's soybean meal department and earlier held similar positions with A. E. Staley Manufacturing Co. and Cargill, Inc.

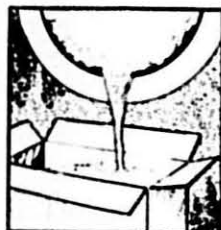
79TH ANNUAL NPA MEETING
 July 17-20, 1983
 Silverado, Napa, California

CLYBOURN CARTONERS meet a wide range of needs

VERTICAL CARTONERS

Clybourn cartoner features:

- handle hard-to-feed products • carton size changes
 - sift-proof sealing • tuck or seal end style cartons
- A comprehensive assortment of options and accessories makes it possible for us to satisfy a wide range of cartoning requirements.



Volumetric Filling

Ideal for most free-flowing products such as powders, granules, flakes, macaroni and rice.



Net Weight Scales

For free-flowing, multi-shaped products such as specialty pasta, pet foods, wrapped candies and products with frequent density change.



Auger Filling

Recommended for hard-to-feed, semi-free-flowing products like ultra-fine powders and mixes with shortening.



Hand Loading

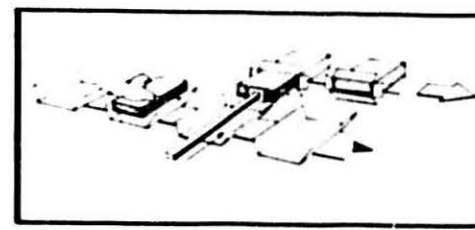
Ideal for operations where product changes are frequent and production volume varies widely.

Plus Others

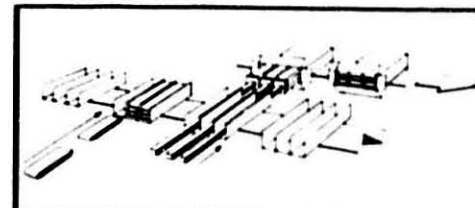
We also offer automatic bottle, can and pouch loading. Tilt tray conveyor makes it possible to feed into the carton irregularly shaped products. Clybourn Vertical Cartoners are available in speed ranges from 50 to 400 cartons per minute. Speed varies with model and carton dimensions.

HORIZONTAL CARTONERS

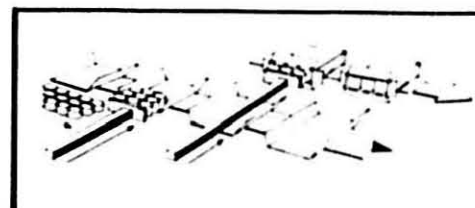
Intermittent Motion and Constant Motion Horizontal Cartoners are available with the following features: • tuck or seal end style carton • three-dimensional carton adjustability • vertical or horizontal form, fill, seal tie-in with automatic collation from single or multiple lanes.



Hand Loading of Trays



Pouch Collation



Container Collation

Built to meet your product and production line specifications, Clybourn horizontal cartoners package a wide variety of products such as: bottles, blister packs, bearings, chewing gum pouches, pencils, pens, bakery, frozen and snack foods, spaghetti and many other types of products.



Clybourn Machine Company
 7515 N. Linder Ave.
 Skokie, IL 60077 312/677-7800
 a division of Paxall, Inc.

DURUM WHEAT IMPROVEMENT UPDATE

R. G. Cantrell and J. W. Dick

North Dakota State University, Fargo, North Dakota

Significant progress has been achieved in the durum breeding project at North Dakota State University in the past year. The primary source of funding, in addition to the Agricultural Experiment Station, are grants from the North Dakota State Wheat Commission and the National Pasta Association. The grant funds provide benefit in two general areas: (1) improved varieties and future product and (2) immediate results from short-term experiments and thesis research.

Release of Lloyd

The most significant achievement in the past year has been the development of the first strong gluten semi-dwarf variety 'Lloyd'. This variety was officially released by the Experiment Station on January 13, 1983. The name 'Lloyd' was chosen to honor Lloyd Skinner who has been active in the National Manufacturers Association or National Pasta Association for over thirty years.

Lloyd durum wheat was derived from a cross between Cando and Edmore made by Dr. James Quick in 1974. The agronomic and disease data for Lloyd and check varieties are shown in Table 1. The yield averages of Lloyd are very similar to Cando in the 1979-82 yield trials. This variety is equal to Cando for maturity, plant height, and lodging. Lloyd has root rot resistance similar to Vic and superior to Cando, Ward, and Rugby.

The quality data for Lloyd for 1979-81 is shown in Table 2. Lloyd is superior to Cando for test weight, kernel weight, and kernel size distribution. The improved kernel weight is reflected in the higher total mill and semolina extraction percentages. Lloyd is essentially equal to Cando for vitreous kernel percentage and ash content. Since Lloyd is a strong gluten variety, the mixogram score is very similar to that for Vic. Cooked spaghetti firmness data is not shown but it is similar to Vic. The spaghetti color is slightly better than Cando and less than Vic. In general, from the quality data Lloyd looks very promising. Lloyd seed stocks will be allocated to approved growers in 1983 and will be available for commercial production in 1984.

Vic Most Popular

The most popular durum variety in North Dakota in 1982 was Vic which occupied 37% of the acreage. Some growers have complained that Vic kernels are lighter in color and bleach easier than Ward, Rugby, or other varieties and this has caused problems in grading Vic. A study has been conducted in our rain simulation chamber at NDSU to evaluate the weathering of Vic and other varieties and experimental lines.

Spikes were harvested at physiological maturity from Ward, Vic, D7609, and D785. The latter two are strong gluten experimental lines from the North Dakota breeding program. The spikes were harvested from hill strips located at Fargo, Minot, and Langdon, ND. A subsample of the spikes was placed in the rain simulation chamber for 2 days. The treatment consisted of an initial wetting period lasting 4 hours where 2 inches of water was applied uniformly to the

Continued on page 46

TABLE 1
Performance of Lloyd and Check Cultivars Grown in North Dakota, Montana, South Dakota, Minnesota, Manitoba, and Saskatchewan in 1979-82

Trait	Station Years	Ward	Rugby	Vic	Cando	Lloyd
Agronomic						
Yield, bu/a	37	460	47.2	46.0	44.7	44.6
Days to head	25	60.0	60.0	59.9	61.3	61.8
Height, cm	29	90.8	91.5	91.6	71.1	70.3
Lodging, 0-9 ¹	16	2.3	3.0	2.3	0.9	0.4
Disease						
Stem rust, adult		R	R	R	R	R
Stem rust, seedling		R ²	R	R	R	R
Leaf rust, adult		MR	MR	MR	MR	MR
Leaf spot, 0-9 ³	14	3.3	3.6	3.5	3.6	4.3
Blackpoint		MR	MR	MR	MR	MR
Root/crown rot		S	S	M	S	MR

¹ 0 = no lodging and 9 = completely lodged.
² R, MR and S = resistant, moderately resistant, and susceptible, respectively
³ 0 = resistant and 9 = very susceptible.

TABLE 2
Quality Data for Lloyd Compared to Vic and Cando in North Dakota in 1979-81

Trait	Vic	Cando	Lloyd
Test wt. lb/bu	60.9	60.0	60.9
Vit. ker., %	90	91	90
Ker. Wt. g	45.0	36.8	38.8
Wheat Protein, %	15.0	14.0	14.2
Kernel Size, %			
Large	45	23	30
Medium	53	72	66
Small	2	5	4
Total Mill Extr., % ²	57.6	56.8	57.0
Semolina Extr., %	52.7	51.4	52.0
Semolina Ash, % ²	0.61	0.64	0.65
Mixogram Score	7.4	5.2	7.1
Spaghetti Color	9.7	9.2	9.5

¹ 24 Station years.
² 6 Station years (1981).

TABLE 3
Percent Reflectance of Six Genotypes for Different Color Modes and Treatments Averaged Over Environments.

Time	Mode	Ward	Vic	D7609	D785	Columb
Reflectance						
1	Green	18.79b*	19.96a	18.50b	18.87b	15.79c
	Red	19.17ab	30.87a	27.33bc	26.79cd	24.42d
	Yellow	20.92a	22.17a	20.79a	20.87a	17.25b
2	Green	23.21ab	24.17a	23.12ab	22.96b	20.87c
	Red	35.87a	37.21a	35.75a	35.04a	31.92b
	Yellow	26.46b	28.06a	26.58b	26.08b	33.08c

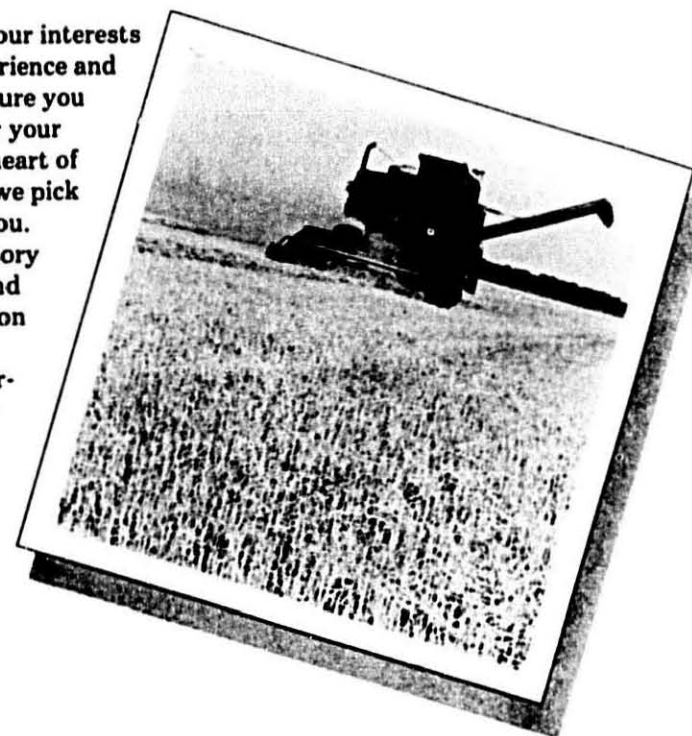
* Means within rows followed by the same letter do not differ significantly at the 5% level of probability according to Duncan's Multiple Range Test.

Thinking of you...

The North Dakota Mill has your interests very much at heart. Our experience and excellent milling facilities assure you the finest durum products for your pasta. We are located in the heart of the rich durum country, and we pick the "cream of the crop" for you. Thorough testing and laboratory facilities assure uniformity and quality control. You can rely on consistency when you order North Dakota No. 1 Semolina, Perfection Durum Granular or Excellent Fancy Durum Patent Flour from North Dakota. We're thinking of you every step of the way.

For the durum people

NORTH DAKOTA MILL
Grand Forks, North Dakota 58201



Durum Wheat Improvement

Continued from page 32

spikes. Throughout the 2 day period, relative humidity was 100% and the temperature was 68 F. After the treatment, the spikes were dried at 90 F for 18 hours and then threshed.

An Agron Colorimeter was used to measure percent reflectance of the kernels relative to the control (Table 3). In the control (round untreated sample), Vic had a higher percent reflectance (lighter color) than the other varieties or experimentals. This difference was not apparent to the naked eye. After 2 days of weathering in the rain chamber, Vic had a significantly lighter kernel color than the other entries. This may be interpreted as bleaching. This should not effect the grade unless there is an accompanying reduction in vitreousness. There is no evidence of this occurring after only 2 days of weathering.

Sprout Chamber



The sprout chamber is now being used in our breeding program to incorporate pre-harvest dormancy



Donald Weed, Ph.D.
Graduate Fellow

(sprout resistance) into our durum germplasm. Donald Weed, Ph D graduate research fellow, is involved in a project designed to screen early generation breeding material for pre-harvest dormancy. Strong dormancy factors from bread wheats and white wheats are being utilized in the program. The search continues for adapted durum wheat germplasm that may have high levels of dormancy. The support for Mr. Weed's fellowship comes from the National Pasta Association and North Dakota State Wheat Commission grants.

Various research projects continue in yield related areas. A study on the effect of the semidwarf gene on grain yield of durum wheat is near completion. It appears from this study that the semidwarf gene block has a positive effect on grain yield. Most of the higher yielding varieties of the future will be semidwarfs. New germplasm improvement (recurrent selection) programs have been initiated. The objectives of these projects are to provide high yielding and genetically diverse parents in the future.

In summary, significant progress has been achieved in the areas of variety development, pre-harvest dormancy, quality, and yield in the past year. Much of the progress can be attributed to financial support and input of ideas from the major sectors of the durum industry.

Quarterly Durum Report

From U.S. Department of Agriculture

According to the Crop Reporting Board's Annual Summary, production of durum wheat was estimated at 148 million bushels (4.01 million metric tons), 21 percent below last year's record high production, but 36 percent greater than production in 1980. Harvested acres totaled 4.22 million acres this year compared to 5.76 million acres last year. All durum producing States indicated substantial reductions in acreage from 1981. North Dakota with over 80 percent of the U.S. acreage was down 23 percent. Cool, wet conditions delayed seeding of durum wheat in Minnesota and the Dakotas with crop development lagging a week or more behind normal during the entire growing season. A later than normal harvest began in early August in North Dakota and progressed slower than normal until late August and early September when excellent conditions allowed harvest to progress rapidly. By late September, 98 percent of the durum acreage was harvested compared with the average 89 percent. Good weather kept sprouting and other quality loss to a minimum.

Stocks Up

Durum wheat stored in all positions on January 1, 1983 total a record high 189 million bushels (5.14 million metric tons), 24 percent more than last year's 152 million bushels (4.15 million metric tons) and 83 percent more than last year's 121 million bushels (3.30 million metric tons), accounted for 83 percent of the total stocks compared with 80 percent one year ago. Off-farm stocks of 33.0 million bushels (898 thousand metric tons) are 6 percent more than last year's 31.0 million bushels (845 thousand metric tons). Disappearance during the October-December 1982 quarter were 28.9 million bushels

Continued on page 36

DURUM WHEAT

State	Area Harvested			Yield			Production		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
	1,000 Acres			Bushels			1,000 Bushels		
Minnesota	120	135	78	28.0	40.0	39.0	3,360	5,400	3,042
Montana	400	480	340	19.0	23.0	30.0	7,600	11,040	10,200
North Dakota	3,850	4,510	3,450	19.0	29.0	32.5	73,150	130,790	112,125
South Dakota	215	250	145	19.0	23.0	24.0	4,085	5,750	3,480
Arizona	155	215	79	40.0	85.0	89.0	12,400	18,275	7,031
California	100	165	125	78.0	89.0	93.0	7,800	14,685	11,625
United States	4,840	5,755	4,217	22.4	32.3	35.0	108,395	185,940	147,505

ASEECO

ASEECO offers much more than high quality, automated equipment. ASEECO is also a service company whose years of international processing experience can provide you with:

- Plant Engineering—Layout and Mechanical
- Electrical Engineering and Control Panel Design
- Machinery Selection and Procurement
- Evaluation of Sub-Contracts and Bids
- Erection and Installation of Machinery
- Plant "Start-Up" and Final Adjustment
- Training of Operating and Maintenance Personnel
- Service After Sale

PRODUCT TESTING:

To ensure the proper application and design of ASEECO products, a research and development facility is maintained to conduct actual on-product tests to determine handling characteristics and to obtain data for the design of specialized process machinery.

TURN-KEY PROJECTS:

In addition to the design, engineering and supply of equipment, ASEECO will, if desired, assist in commissioning a process facility on stream. This service includes the preparation of operating and maintenance manuals, the training of operating personnel, conducting trial and test runs and the supervision of initial operations.

PROJECT FINANCE PLANNING:

ASEECO is prepared to assist clients in obtaining comprehensive project financing. This assistance is inclusive of counseling on the type of financing best suited to your requirements and locating the source that can provide it.

Ask for the following literature.

Name _____ Title _____

Company _____ Phone _____

Address _____

City _____ State _____ Zip _____

ASEECO
Corporate Brochure



ASEECO CORPORATION • 3100 BANDINI BLVD., LOS ANGELES, CA 90023 • TELEPHONE (213) 267-1960 • TELEX 472-0432

ASEECO-LIN Overlapping Bucket Elevators.

Simple design. Modular construction. Sanitary. Open tubular and solid wall as well as totally enclosed models. One piece plastic buckets. Seven configurations—13 bucket sizes.



ASEECO Belt Conveyors.

Available in troughed and flat sided bed designs. Flat and troughed roller bed woven steel belt or introlex. Sanitary construction.



MODU/TRAN® Vibratory Distribution System.

Simultaneous conveying and distribution of product on demand to multiple packaging machines, hoppers, sorters and mixers without starvation or product recirculation. Compact. Sanitary design.



ASEECO Vibrating Conveyors.

For conveying any free flowing or semi-free flowing material. Also for processing, heating, cooling, separating and screening applications. Exclusive flex spring linkage provides positive vibration of tray without damping underload. Available in natural frequency design.



ASEECO Selectomatic Bin Storage Systems.

Fully automatic bin storage systems for free flowing materials. Sanitary construction and multitude of options.



ASEECO ACCUMAYEOR®

Automatic storage system which accepts non-free flowing products at varying rates and discharges product on demand. Stores product in bulk. Fills the gap between continuous processing and packaging machines. Two basic models with varied and discharge options to meet varying product characteristics.



Quarterly Durum Report

Continued from page 34

(786 thousand metric tons), down 22 percent from the 36.8 million bushels (1.00 million metric tons) during the same period a year earlier.

Exports Down

U.S. exports during June-December 1982 period totaled 830.7 thousand metric tons (30.5 million bushels) compared with last year's figure of 1.3 million metric tons (48.8 million bushels), a decrease of 496.8 thousand metric tons (18.3 million bushels). The largest importers were Algeria, Italy, Netherlands, Tunisia and Venezuela taking 620.6 thousand metric tons, accounting for a majority of the total imports for the period. Durum exports out of Duluth-Superior for the 1982 navigation season totaled 30.8 million bushels (839.2 thousand metric tons) compared with 39.7 million bushels or 1.1 million metric tons during the same period last year.

In Canada

Acreage of durum wheat in the Prairie Provinces in 1982 decreased to 3.8 million acres compared with 4.2 million in 1981. Yields were up, estimated at 32.2 bushels compared with 26.0 bushels per acre in 1981. The November estimate of the 1982 crop was 120.7 million bushels compared with 109.4 million in 1981. The visible stocks of Canadian durum in licensed storage and in transit as of January 19, 1983 increased to a position of 1.0 million tonnes compared with 790.9 thousand tonnes a year ago. Canadian exports of durum June-December totaled 1.7 million tonnes which was comparable to last year's figure of 1.6 million. Algeria, Italy and the U.S.S.R. were the major importers taking a total of 1.4 million tonnes.

Canadian Durum Payments

The Canadian Wheat Board has made final payments totaling more than C\$582 million to prairie grain producers for deliveries of wheat, durum wheat, designated oats, barley and designated barley during the 1981-82 crop year ended July 31, 1982.

The payments represent the balance owed to farmers from grain sales made by the Wheat Board, which is the sole marketing agency for wheat and the other grains.

In the case of No. 1 amber durum wheat, the final Wheat Board payment in 1981-82 was 70.3c per bu, or \$25.836 per tonne, bringing the total price to \$5.453 per bu, or \$200.336 per tonne. In the previous crop year, the Board paid a final price of only 58c per tonne on durum, but that followed an adjustment payment of \$55.28 earlier in the year, and the final realized price on this class and grade of wheat for 1980-81 was \$239.58 per tonne. The final price for 1979-80 was \$204.85 and in 1978-79 it was \$148.93.

Pasta Subsidy Decision Awaited

The complaint by National Pasta Association that the European Community unfairly subsidizes the export of pasta products to the U.S. is under consideration by a General Agreement on Tariffs and Trade panel and it is hoped that the panel will complete its work within the next few weeks, according to an update from Collier, Shannon, Rill & Scott, counsel for N.P.A.

A petition was filed Oct. 16, 1981, on behalf of N.P.A. with the Office of the Special Trade Representative asking for a protest of the use of pasta subsidies pursuant to the procedures established under the Subsidies Code of the Multilateral Trade Agreements. After accepting N.P.A.'s petition, the S.T.R. entered into consultations with the E.C. and thereafter entered into conciliation as required by the Subsidies Code to produce settlement of the controversy.

The E.C. rejected compromise, arguing that it only granted export refunds on the primary element of pasta products, or durum, an action it claims is permissible under Article 10 of the Subsidies Code. The position of N.P.A. is that pasta is a processed product, the subsidization of which is prohibited under Article 9.

Following conciliation, S.T.R. requested that a panel be convened to hear the dispute and make its recommendation to the full Subsidies Code Committee. A panel consisting of representatives from Austria, Canada, India, Hong Kong and Finland was convened and heard presentations by the parties July 12 and Oct. 18, 1982.

No decision has come down from the panel and the legal firm representing N.P.A. expressed the hope that it

will complete its work within the next few weeks. The normal procedure followed by GATT panels is to circulate its findings privately to the parties involved before submitting formal findings to the full Subsidies Code Committee. This gives the parties one last opportunity to settle their differences before the panel's decision is made public, it was explained by Collier, Shannon, Rill & Scott.

Wheat Industry Council Meets

Members of the Wheat Industry Council recently gave first round approval to an ambitious new schedule of programs and activities for the Council's 1983-1984 year beginning next July 1.

Approval of the Council's fiscal year budget came at the organization's annual meeting March 9-10 in Washington, which included a review of consumer education programs, including a new regional spokesperson campaign that is off to what appears to be an encouraging start in two regions.

In reviewing the Council's first two years of operations and activities for the year ahead, Raymond L. Davis, newly elected chairman of the Council, said, "This is the year we can put this whole thing together." Mr. Davis is a wheat grower from Potter, Nebraska.

Donna Myers, president of Myers CommuniCounsel, New York, W.I.C. new public relations agency, said there are three basic objectives for the fiscal 1984 program:

"Generate maximum consumer awareness and understanding of W.I.C.'s basic messages and communications theme.

"Create W.I.C. member awareness / enthusiasm via internal communications and reporting effort.

"Lay groundwork for expanded communications activity for even broader audiences in fiscal 1985."

"The Natural Choice" will be the overall program theme.

Joan Reynolds reviewed the Council's role in the February publication of an article on bread in the Reader's Digest; a story on pasta in the January issue of Health, and cited several upcoming articles on wheat foods and nutrition in other consumer magazines.

Quality product... when you need it!

- Bulk truck delivery of No. 1 Semolina direct from the mill in a matter of hours.
- Load-cell scaling for super-accurate weights.
- No demurrage costs as a result of stacked up cars.
- Complete control of loading and unloading schedules.

For year-round super semolina service...



Seaboard Allied Milling

DEPARTMENT OF CARGILL, INC.





From left to right: Mr. Salvatore Di Cecco, Mrs. Laura Ricciorelli,
Mr. Maria Ricciorelli, Mr. Aldo Ricciorelli, Mrs. Mirco Di Cecco,
Mr. Alessandro Di Cecco.

Voluntary Employee Benefit Association

Primarily as a result of the skyrocketing cost of insurance coverage, more and more employers who provide their employees with life insurance and medical benefits are investigating the avenue of self-insuring some or all of these benefits. Typically, the employer will self-insure those benefits which its resources allow and obtain coverage from an insurance carrier for those risks which it considers unacceptable. Further, because of the preferential status the tax law extends to Voluntary Employee Benefit Associations (VEBA's), an employer going the self-insurance route can benefit substantially through use of a VEBA trust.

One of the tax benefits of the VEBA is its ability to amass reserves tax-free. Amounts contributed to the trust which are not immediately required to pay benefits can be invested and the income earned on this investment not be subject to taxation. The savings can be used to finance benefits, thereby further reducing the company's costs. Of course, this procedure requires the employer to prepay its contribution to the trust.

Ernst & Whinney can provide you with suggested wording for the necessary documents discussed below. However, these documents would need to be reviewed by legal counsel. In addition, E&W can provide assistance with the IRS application for recognition of the exempt status of the trust.

Statutory Requirements Applicable to VEBA's

In order to qualify as a tax-exempt organization under Section 501(c)(9), the organization must be a voluntary employee benefit association which provides certain allowable benefits to its membership; no part of the association's earnings can inure to the benefit of any private shareholder or individual other than through payment of benefits. Membership in the association must be voluntary.

The employer has considerable flexibility in determining eligibility standards for participation. The only limitations are that standards be objective, focus on an "employment-related common bond," and do not discriminate in favor of officers, shareholders or highly compensated employees. The regulations also permit

coverage of a participant's spouse and dependents. Benefits which may be funded through a VEBA include life insurance, sickness and accident benefits, and other benefits. According to the regulations, the term "other benefits" is limited to those benefits which are similar to life, sickness or accident benefits. Examples of permissible other benefits include vacation benefits, child care facilities, income maintenance, and severance benefits.

Four Steps to Implementing VEBA

1. Prior to December 31, 1983, the corporation's Board of Directors must enact a resolution authorizing the company to enter into an agreement establishing a trust to provide various welfare benefits to the corporation's employees. From a tax planning viewpoint, it is better to fund as many benefits as the employer wishes to provide through the VEBA. This is because the greater the variety of benefits which are funded by the VEBA, the greater the flexibility there is in determining the amount of the deduction.

2. A written plan must be adopted, designating the company's employees as members of a voluntary employee's beneficiary association, as described in Section 501(c)(9) of the Code. The plan should outline the kind of welfare benefits to be supplied by the trust, and the terms under which the various benefits will be paid.

3. Prior to December 31, 1983, the Board must authorize a contribution to the trust by making an irrevocable promise to pay a certain sum prior to the close of the following tax year. The amount of the promised payment should equal the amount the company expects to pay by December 31, 1984, for the benefits to be funded by the trust. For example, if medical benefits under a self-insured plan are to be funded by the trust, the company would estimate its expected benefit payments for the coming tax year and authorize a contribution in that amount. The irrevocable promise to pay is established by enactment of the corporate resolution and by executing another document which resembles a note and which establishes the terms of payment.

4. Beginning January 1, 1984, the trust will pay the welfare benefits according to the terms of the plan. That is, the company will make payments to the trust as funds are needed, which payments will be credited against the company's accrued liability to the trust. The trust will then use those funds to provide the welfare benefits. Thus, the trust makes the payments in place of the company. By making trust contributions on an "as needed" basis, the company will part with cash at the same rate as it would normally. Alternatively, if the company has cash available, it may fund the trust earlier, thereby benefitting from the tax-free earnings generated by the trust.

Filing Requirements Applicable to VEBA's

A VEBA need not file an application for recognition of exemption with the IRS as a condition precedent to tax-exempt status; however, this practice is routinely followed to avoid inevitable problems in the future. Moreover, any impediments to exemption can be easily removed at inception of the plan, thus avoiding the exposure to penalty and interest liability if exemption is subsequently denied. For an organization described in Section 501(c)(9), application for recognition of exemption if filed using Form 1024 Accompanying Form 1024 must be a copy of the plan and trust documents, two years' proposed budgets for the organizations (VEBA's), and a Power of Attorney, if applicable. If an independent administrator is to be employed to administer the plan, an Administrative Service Agreement should be prepared, signed by the responsible parties, and submitted with Form 1024. In addition to the initial filing requirements summarized above, an annual return on Form 990 must be filed.

The prevalent use of VEBA's illustrate their potential as vehicles to enable employers to reduce their costs of providing benefits to employees and as a means to accelerate deductions for these costs.

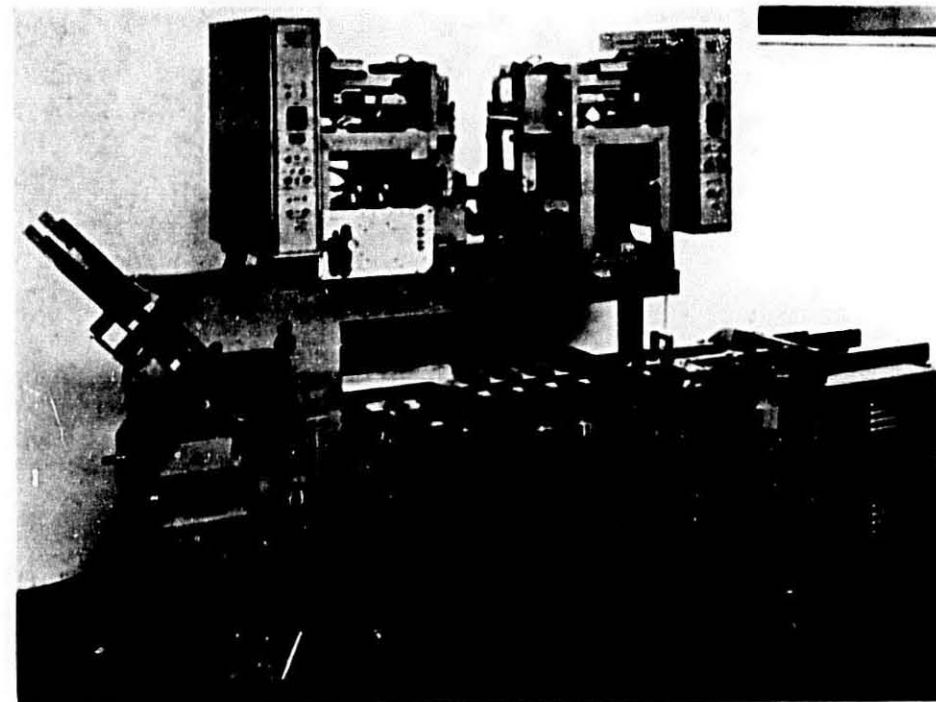
La Rosa Acquisition

A D M has acquired the assets of V. LaRosa & Sons, Inc., Hatboro, PA, Milwaukee, WI and Flushing, NY.

GARIBALDO RICCIARELLI S.A.S.

TAKES PLEASURE IN INTRODUCING THE NEW
HIGH SPEED, RELIABLE, DURABLE, LOW COST

LRO HORIZONTAL CARTONER



AMBATI:

Systems for pneumatic conveyance and blending of semolina and flour

Storage for noodles and short-cut pasta

Dry pasta mill grinders

GRONDONA NIMET

- Complete Pasta Lines Equipment
- Long and Short Cut Pasta, Egg Noodles, Fideos, and Special Shaped Lines
- Stainless Steel Rotating Drums Short Cut Dryers
- Extruder-Cooker Lines for Baby Foods, Dietetic Foods, Instant Foods, Snacks, Soya Steak, Soya Milk, Gelatinized Starches, Pet Foods, Texturized, Vegetables, etc.

NICCOLAI:

Dies and die-washing machines

High-resistance bronze-aluminum and extra-light aluminum-titanium alloys

Ecologic water-recovery and decantation tanks

SALVATORE & ALESSANDRO DI CECCO
EXCLUSIVE NORTH AMERICAN SALES AGENTS
Rural Route 1, Richmond Hill, Ontario L4C 4X7, Canada
Tel. (416) 773-4033, Telex 06-986-963
Alternate Telephone No. (416) 898-1911



grondona nimet

COMPLETE PRODUCTION LINES FOR THE PASTA INDUSTRY
SINCE 1948

BELT AUTOMATIC SHORT-CUT PASTA LINES

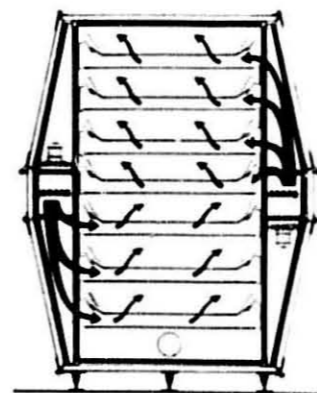
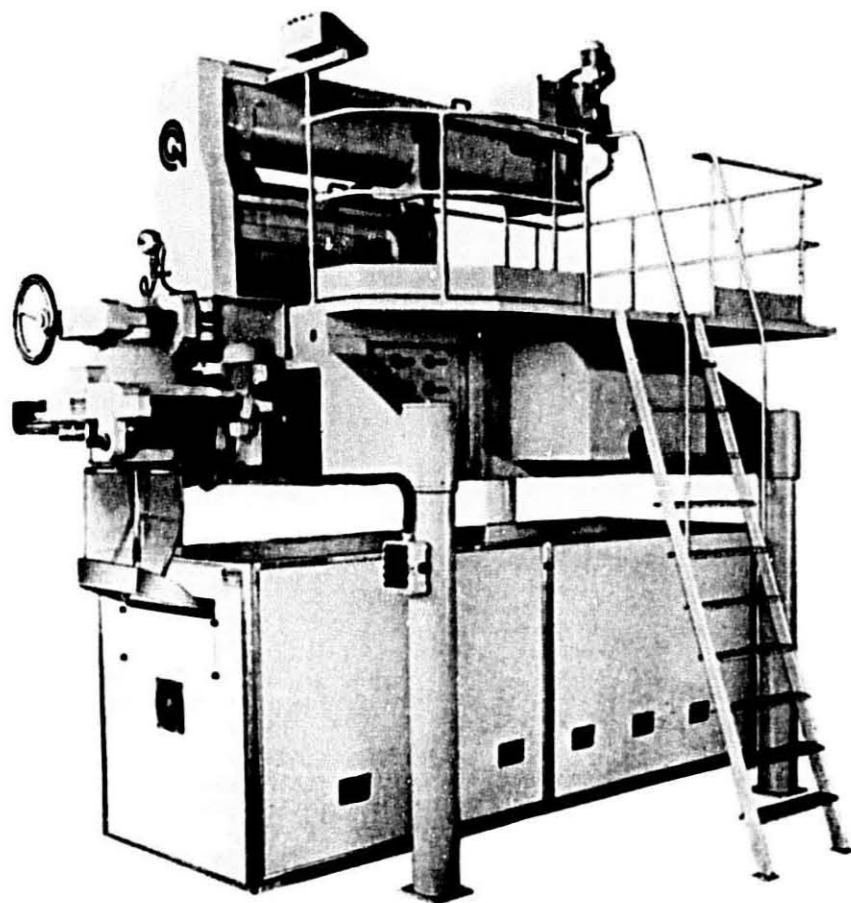


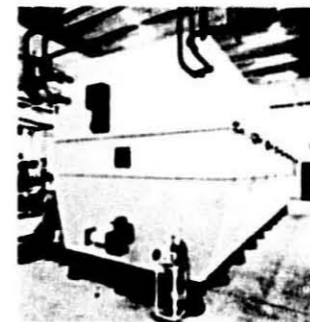
Diagram of ventilation on the front part

On the second part of the apparatus the

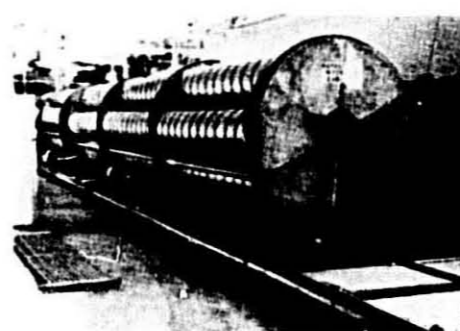
ventilation is made in the opposite way

The dryers can be manufactured in 258 different versions according to the requirements of each user, keeping their standard characteristics. The 285 versions are obtained by combining the following variable possibilities:

- 1. Changeable length, meter to meter, from m. 8 to 26 (19 possibilities);
- 2. Number of floors: 5, 7, 9, 11, 13 (5 possibilities);
- 3. Belt width 1200, 1500, 1800 (3 possibilities).



A new automatic long pasta line was recently started up at the M. Mesa pasta factory (Maracab), the biggest in Venezuela. The line consists of a GR 115/L press, PLD 130/25 pre-drier and ELB 328/5/25 drier. Output during testing exceeded 1800 kg/h of dry product (photo on the left).



The Rinold Spagnelli Company, the biggest in Melbourne, Australia, has installed and started up, alongside a GRONDONA NIMET line, not only with belt driers, a new pasta line equipped with IRB EFB drum driers. The photo on the right shows one stage of assembly, which is both easy and fast.

SALVATORE & ALESSANDRO DI CECCO
EXCLUSIVE NORTH AMERICAN SALES AGENTS
Rural Route 1, Richmond Hill, Ontario L4C 4X7, Canada
Tel. (416) 773-4033, Telex 06-986-963
Alternate Telephone No. (416) 898-1911

Pasta Publicity in Magazines

The April issue of *Ladies Home Journal* has a double page feature entitled "Pasta Mania!" What inspires Moffo's high C's? Vermicelli! What puts Minelli in the spotlight? Spaghetti! What keeps Sinatra crooning? Linguini! What makes Lollobrigida luscious? Capellini! A dozen recipes of the stars are given.

Lady's Circle, April — Cover story: "Delicious and Filling 30-Minute Recipes." Black and white photo of German Sausage and Mushroom Noodle Stew with four additional recipes. Circulation: 200,000.

Woman's Day — The Pleasures of Easy International Cooking, April — Cover shows Italian Meatballs with Vegetable Sauce. Double-page color spread of NPA color photo of Spaghetti with Clam Sauce. Other color pictures — Chicken Lasagne, Marco Polo Lo Mein. Circulation: 500,000.

Good, March — Pasta recommended in 1,800 Calories Basic Meal Plan article. Circulation: 730,293.

Cuisine, March — Beef with Noodles in Pot color photo and recipe. Circulation: 800,400.

Family Circle, March 8 — "Micro-wave Meals." Hearty Italian Stew recipe shown in color (spaghetti an ingredient). Circulation: 7,753,608.

Glamour, March — Vegetable Soup recipe. Circulation: 1,879,400.

Good Housekeeping, March — Cover story: "The Meat & Pasta & Rice & Potatoes & Stuffing & Beans Cookbook." Pasta with Fresh Tomato Sauce, Spinach Fettucine Alfredo, Easy Noodles and Broccoli, Fettucine-Cabbage Medley Recipes in color photos. Circulation: 5,520,000.

Great Recipes of the World, March — Pasta Gratin with Sausage and Mushrooms recipe. Circulation: 298,690.

McCall's, March — Spaghetti with Pesto Fish Sauce recipe. Circulation: 6,200,000.

Parents, March: "The Pleasures of Pasta: Taking A Look at America's Newest (and Cheapest) Status Food." Three pages of color photos. Copy in part: "Although still inexpensive, the shapes, styles and colors available to the American shopper these days are almost limitless. Commercially

made pasta is still your best buy. . . ." Pasta Primer section is included with diagram of pasta shapes. Total of 12 recipes. Circulation: 1,760,155.

Redbook, February — "Why You're Going to Love the Food of the Future." Story geared to eating to the U.S. Dietary Guidelines which recommends Green Noodles with Tomato Sauce and Chicken Provencal with Penne in color photos. Circulation: 4,309,000.

Young Miss, March — Color photo and recipe — Chicken Normandy color photo and recipe. Circulation: 311,200.

Bon Appetit, February — Rye Rice Pilaf recipe (vermicelli an ingredient). Circulation: 1,144,700.

Farm Journal, Mid-February — Pork Stuffed Manicotti recipe shown in color. Circulation: 1,043,480.

Vegetarian Times, February — Cauliflower Paprikash recipe (noodles an ingredient). Circulation: 55,000.

Woman's World, February 22 — Spaghetti Pie color photo and recipe. Circulation: 600,000.

Noodles for Needy

The U.S. Durum Growers Association and the North Dakota Wheat Producers joined forces in a food gift program called "Noodles for Needy". The idea came from several different sources at about the same time. Growers are contributing surplus durum to be milled at North Dakota State Mill and Elevator and made into pasta by Noodles by Leonardo in Cando. Then off to the distribution points — Cleveland, Ohio, and the Government Surplus Cheese and Butter distribution points in North Dakota. The Association says, "We don't have a whole lot but what little we've got, we'll share."

Conagra Dividend

ConAgra, Inc. declared quarterly dividend of 25 cents per share on the common stock, payable June 1 to shareholders of record April 29. It also declared dividend of 62½ cents per share on the Class D preferred stock, payable April 1 to shareholders of record March 18.

FLOUR HANDLING SYSTEMS by Robert F. Moore AZO Incorporated

Automation and efficiency are the keys to success of the food plants of the future. One of the most important areas in which these two features can obtain immediate results is the handling of bulk materials.

Proper design of the bulk material handling and control system can not only increase product consistency and help eliminate manpower, but can also help greatly in the sanitation of the entire plant through a dust-free design. Proper flour sifting at the correct points in the process can also be a great aid in insuring consistent product quality. A properly designed control system can not only provide hands-off automation, but also provide you with critical management information, such as flour inventory, flour throughput per press, and an accurate indication of the amount of flour received by either bulk truck or railcar.

The efficiency begins at the railcar unloading system, which should be designed to unload a railcar in the minimum time that is practical, based on the overall throughput of the process. Vacuum unloading insures cleanliness in this area and permits ease of flexibility with multiple railcar unloading points.

Sifting prior to storage is important. The tailings can be collected and numbered, according to the railcar, and used to analyze the quality of the product received from the mill. Silo discharge is another important area.

The discharge system should be designed for a first-in/first-out material throughput. This can only be accomplished by a proper discharge system which prevents a large funnel flow within the silo and inconsistent flour discharge.

The feeding system to the press should either be an all vacuum system or a combination vacuum/pressure system, depending on the plant layout, distances, throughput, etc. This area should be designed to optimize the advantages of the different types of system to provide you with the most economical and most trouble-free and dust-free system available.

The press feeding operation, when combined with a proper control system, can provide very accurate and

consistent blending of different flours. The system can be designed to feed a different formula to each press automatically on demand.

The discharge system in the press holding bin should also be designed for a first-in/first-out to prevent a separation of the accurate blend provided by the feeding system. Sifting of the flour immediately prior to entering the press, is also important, both from a product quality standpoint and for protection of the press from foreign contaminants. Depending on the press design, the discharge can be controlled to provide a constant head of material on the press at all times to further help product consistency.

The control system should utilize all solid state controls and provide the operator with a view of the total process, either through a graphic panel with indicator lights at the various process points, or with graphics provided by a CRT. Either can give the operator view of the process and indicate any problems that may occur before they can effect the production process. The entry of the formula for each press should be accomplished easily, but would require either a key or a code number to change this formula.

Proper handling of regrind is also important to the product consistency and sanitation of the system. Material to be reground could be stored in a bin in the regrind room prior to grinding. Grinding should be accomplished by a corrugated roller mill to prevent the generation of excess dust and induction of too much heat into the material. A much more consistent grind with narrower particle size distribution can be obtained by using the roller mill, which further increases product quality and consistency. The regrind material is fed into the blending system. The percentage to be fed back in is determined by the control system as another component to the formula. The control system can be set to the desired percentage of regrind to individual presses and can be set so that some presses receive no regrind.

In closing, let's review the key points in the proper material handling system design:

- 1) Hands-off automation
- 2) Proper control of materials
- 3) Availability of management data
- 4) Dust-free design

5) Formula accuracy

6) Proper bin discharge

7) Sifting to assure quality

8) Proper preparation and feeding of regrind.

Morgan & Associates

Morgan & Associates, founded in January, 1960, has been working as a consultant principally in the Pasta and Snack Foods Industry during these years. The principal operation of the company has been to design and build special labor saving devices and machines that result in increasing efficiency while at the same time reducing the cost of labor by automation.

For over twenty years we have principally engaged in the design and construction of spaghetti conveying equipment, that, through a series of electric eye controls, completely and automatically delivers spaghetti from the Dryer to the packaging machines. Rarely is it possible for us to exactly duplicate a system, since we continually have to design the equipment to fit into an existing layout. We work in areas many times where "Straight Line" conveying is not possible. Sometimes it is necessary to design special equipment such as "S" curves, etc. to convey spaghetti around a corner or an offset in order to move the product into position so that it can be further conveyed into the packaging equipment. Then through the use of bucket elevators and horizontal conveyors (stainless steel buckets) and chimneys and spaghetti cutters, we can move the product from the Dryer into the packaging machines. With this equipment, we can move around curves or go at right angles, etc. so that the packaging machines can be located almost in any position away from the Stripper.

Versatility

The equipment is especially versatile in that we can direct different products from two different or more Dryers into the same packaging equipment. This is accomplished with the use of two parallel horizontal conveyors, each of which receive spaghetti from its respective Dryer. Then, for example, depending on how the electrical control panel is set at any one time, the product from Dryer "A" can be directed to packaging equip-

ment "C". Then by turning the switch at the control panel, the product from Dryer "B" can be directed into the same packaging equipment "C". Packaging equipment "C" can be one or a series of packaging machines, depending upon your needs.

This system is completely controlled by the requirements of the packaging equipment, and its limitations are based upon the limits of the Stripper. Through a series of electric eyes, as the packaging equipment "calls" for more spaghetti, it automatically operates the horizontal conveyors, the bucket elevators, etc., and "calls" for one more stick of spaghetti from the Stripper. The system draws off product from the Stripper only as fast as it is being packaged. Since the system is completely automatic, one machine or a number of packaging machines, can be in operation at the same time without adjustments to the controls. Also, a bulk station can be included to draw off 5 - 10 or 20 pound quantities or whatever quantity is needed of either 10" or 20" product.

Maintenance and Spare Parts

Maintenance is at minimum, consisting mainly of occasional attention to standard roller bearings, etc. All gear drives, clutches, brakes and electrical motors and controls are basic standard equipment and can be purchased in your location. Unfortunately for us, we couldn't take our wives to MacDonaldis once a year on the total volume of spare parts sales.

Other Equipment

Other equipment includes various widths and lengths of chimneys to bring your product from one floor to another, or for short distances with or without proportioning equipment at the bottom. Air operated cutters are designed to cut spaghetti to any designated length and place it in scale hoppers, if necessary.

Regrind

A regrind unit is available that will accept any length of spaghetti or short goods product from a portable hopper, and without using high speed or noisy equipment, the product is broken into pieces approximately ½" in length so that it is suitable to be pneumatically conveyed to any location in your plant. This equipment is

Continued on page 46

INDEX TO ADVERTISING

	Page
AZO	9-13
A D M Milling Co.	26-27
Amber Milling Co.	19
Aseco Corporation	35
Braibanti Corporation	6-7
Buhler-Mieg Corp.	29
Clyburn Machine Co.	31
ConAgra Peavy Company	22-23
DeFrancisci Machine Corporation	11-12
Federal Energy Systems	15
Feld Pak Corporation	2
Grandone Nimet	42-43
International Multifoods Corp.	48
Maldari Sons, D., Inc.	17
North Dakota Flour Mill	33
Ricciorelli Packaging Machines	39-41
Rossotti Consultants Associates	47
Seaboard Allied Milling Corp.	37-38
Winston Laboratories	15

CLASSIFIED ADVERTISING RATES

Want Ads \$1.50 per line
Minimum \$5.00

WANTED: Domestic used presses, spreaders. For information write P.O. Box 1000, Peletina, IL 60067.

James Beard

Continued from page 3

The second is refreshing, easily-made Salmon-Dill Salad with Pasta Shells. Beard notes . . . "Years ago, I used to make a smoked salmon spread very much like this using lots of shallots and cream. I think that this version, with yogurt, is even better. The pasta soaks up and holds some of the wonderful shallot and salmon flavor."

"Beard on Pasta" has been published by Alfred A. Knopf, New York. It is available in hard cover for \$13.95.

Vegetable-Noodle Casserole (Makes 6 to 8 Servings)

- 4 tablespoons butter
- 2 tablespoons olive oil
- 3 onions, sliced
- 1 clove garlic, chopped
- 1 cup minced parsley
- 1/4 teaspoon oregano
- 4 tomatoes, peeled, seeded, and chopped
- 1 cup chicken broth
- Salt and freshly ground black pepper
- 1 pound wide noodles
- 3 small, firm zucchini, sliced in rounds



Joe and Carolyn Lichtenberg made their debut at the National Pasta Association Winter Meeting.

Grated cheese — Cheddar or Gruyere

Melt 2 tablespoons of the butter and the oil in a heavy saucepan. Add the onions, garlic, parsley, and oregano, and cook, stirring occasionally, until the onions are golden. Add the tomatoes and chicken broth, salt, and pepper, and cook for 10 minutes.

Cook and drain the noodles. Mix the rest of the butter with the freshly cooked noodles. Stir in the tomato sauce and the zucchini circles and pour the mixture into a buttered baking dish. Sprinkle the top with a handful of grated cheese, dot with more butter, and bake for 15 to 20 minutes at 375°.

Salmon-Dill Salad with Pasta Shells (Makes 6 Servings)

- 1/2 pound tiny shells or twists
- 1/4 pound smoked salmon
- 1/4 cup mayonnaise
- 1/4 cup yogurt
- 3 tablespoons chopped shallots
- 1/2 lots of finely chopped fresh dill

Cook and drain the pasta. Cut the salmon into slivers. Then toss into a dressing made of mayonnaise, yogurt, shallots, and dill. Mix with the pasta, and refrigerate the salad for several hours to let it mellow. Taste for seasoning: you may need to add pepper, but you probably won't need any salt because of the salty taste of the salmon.

Morgan & Associates

Continued from page 45

equipped with a variable speed drive, so that it will produce at the rate from 250# per hour to over 2,000# per hour.

Research and Development

Many companies today do have special problems or need special equipment to keep their labor costs at a minimum. We are a low overhead company with the availability of complete machine shop equipment, so that we can design and build all types of special equipment for your needs.

Rossotti Consultants Associates, Inc.

Rossotti Consultants Associates, Inc., 158 Linwood Plaza, Fort Lee, New Jersey 07024; (201) 944-7972 is the successor to Rossotti Lithographing and Packaging Corporation, founded in 1898.

Charles C. Rossotti, President, is the direct descendant and son of the founder, Edward Rossotti. Mrs. Betty Rossotti is Executive Vice President and Secretary of the Corporation. Jack E. Rossotti is Vice President. He is the son of Charles C. Rossotti and the third generation in the Rossotti family active in the macaroni industry.

The Rossotti organization, operating as professional consultants to the macaroni industry has world-wide connections in all phases of the macaroni industry.

Starting as a lithographing and packaging organization, Rossotti has continued to expand its activities in sales promotion, marketing, merchandising and practically all phases of the macaroni industry, including production supplies, machinery and equipment, personnel, etc.

Rossotti also operates on a confidential basis concerning the buying and selling of macaroni plants and plants of allied industries.

Rossotti has designed and produced packaging on a nationwide basis for over seventy years. Rossotti has experience in sales promotion, having conceived many promotional programs and having studied many that others have launched throughout the industry. Rossotti has experience in marketing all types of macaroni, spaghetti and egg noodles and allied combination products with modern marketing methods. Rossotti can point the way in merchandising new products and lay out merchandising methods and programs.

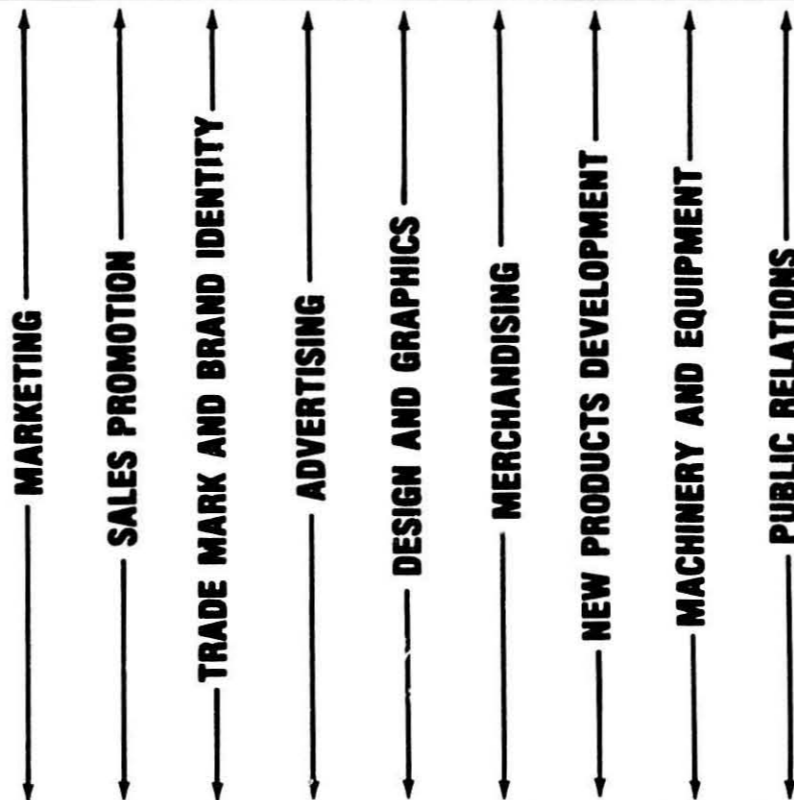
The Rossotti's are considered leading consultants in all phases of the macaroni industry.

ROSSOTTI

SPECIALIZED CONSULTANTS TO THE FOOD INDUSTRY

SINCE 1898

OBJECTIVES BUILDING A CONSUMER FRANCHISE FOR YOUR BRAND



PRODUCT AND PACKAGE

We have experience in these areas

ROSSOTTI CONSULTANTS ASSOCIATES, INC.

158 Linwood Plaza

Charles C. Rossotti, President

Fort Lee, New Jersey 07024

Jack E. Rossotti, Vice President

Telephone (201) 944-7972

Established in 1898



*We make regular inspections during the growing season
to give you the finest in the field. We're Multifoods.*



 INTERNATIONAL
MULTIFOODS.