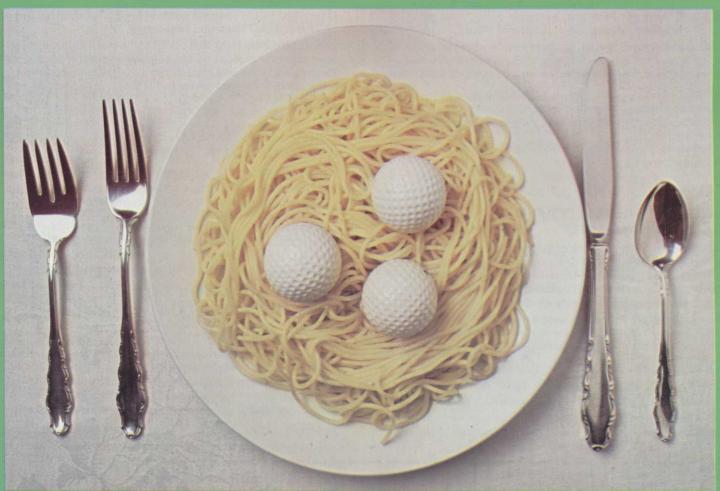
Foodservice and Golf:



A Profitable Pair

Those readers who studied the "Profile of the Industry" article in the April issue of GOLF BUSINESS will already know what we are about to propose here: that food and beverage service can be the single biggest money-making operation at your golf facility. Our industry report showed last month that for those three-fourths of the courses which have it, food and beverage service makes up an average of better than 43 percent of their income. That's why we asked our foodservice editor, Brother Herman Zaccarelli, to put together the following special section on foodservice and golf. They really are a profitable pair.

Standardize recipes for consistent quality — and profits

by Herman Zaccarelli, foodservice editor

There are two sides to every story, and there are two sides to the use of the standard recipes in food services. One chef related to me that "if we use standard recipes, that's what we get — a standard food item. We want to be different." But the director of foodservice at Elizabethtown College recently stated to me, "Our standardized recipes make our foodservice different, unique."

There are two sides to every coin. Let's view the positive side of this club foodservice investment.

- Standard recipes control the quality and quantity of each food item produced.
- The standard recipe really predicts a standard of excellence for the commercial restaurant, institution, or club. We as Americans patronize most often the foodservice establishment that holds the reputation for quality food, well served, in a pleasant atmosphere. If restaurants (and many do) serve an excellent veal parmesan the first visit and a tough piece of veal, with a poor quality tomato sauce, the next visit — repeat business is unlikely.

The American public is conditioned to quality consistency, which means that the quality is repeated through the proper use of standardized recipes. Achieving consistency means the standardization of the following in a recipe: seasoning, methods of combining ingredients, proper temperature, appearance and garnish, yield, method of service, and degree of doneness.

Employee training

To develop the consistency of quality products, the foodservice employee must be constantly exposed to proper food handling techniques, acceptable methods of preparation, and good service. The single most reliable source for food handling techniques is the well-written standardized recipe.

Quantity control (yield)

The words "over production" and "waste" are often used to describe loss of profits. To avoid this "loss of profit," quan-

Brother Herman Zaccarelli is a man of many talents. He is a Franciscan friar, an accomplished writer and editor, and a nationally recognized authority on foodservice management. In addition to serving as foodservice editor of GOLF BUSINESS magazine, Brother Herman is director of educational marketing for the Educational Institute of the American Hotel and Motel Association at Michigan State University. He is shown here with The White House chef, Henry Haller.

tity control in a standardized recipe allows clubs the following advantages:

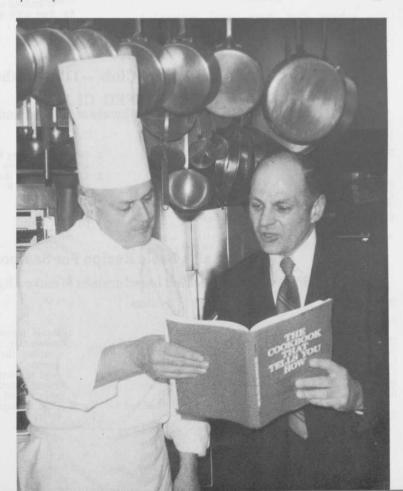
- 1. Establish the number of portions needed.
- 2. Purchase the exact quantity called for in the standard
- 3. Use correctly-sized serving utensils.
- 4. Make effective use of leftovers if unavoidable overproduction occurs.

Cost control

The standardized recipe allows management to cost the food product very easily; all that is needed is to add the costs of each of the ingredients. Each item on the menu must be examined frequently for the relationship between its cost and selling price because of market fluctuation.

The personal touch

The creativity of the standardized recipe is essential for its total success. Each food service develops its own recipe forms, then standardizes them. These food services enjoy the better side of the larger coins because profits will be higher and customers will be pleased with consistent quality.



Favorite recipes from the nation's finest clubs

Private resorts and clubs must be more creative than restaurants and other forms of foodservice. They have an unchanging clientele who regard the club as an extension of their own

Private resorts and clubs must offer a greater variety of quality food. They are, indeed, meeting the challenge!

We are delighted to feature these selected recipes from famous clubs who are noted for their fine cuisine with winning combinations.

Herman Zaccarelli Foodservice editor

Interlachen Country Club — Edina, Minn.

INDIVIDUAL SHERRY TRIFLES

(An elegant dessert: sherry-soaked macaroons topped with trifle custard and rum-sparked whipped cream nestled in a champagne glass)

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Ingredients	6 to 8 portions	24 to 30 portions	Method
CUSTARD Eggs, separated Granulated sugar Salt Cream sherry or Madeira Flour	4 4 oz. (½ cup) pinch ¾ cup 1 tbsp.	16 16 oz. (2 cups) ¹ / ₄ tsp. 3 cups ¹ / ₂ cup	 In a double boiler, over hot water, cook together egg yolks, sugar, salt, and sherry or Madeira Stir constantly until custard thickens; work in flour Cook 2 minutes longer. Cool custard and fold in stiffly beaten egg whites.
MACAROONS Almond paste Granulated sugar Confectioners' sugar Egg whites	1 lb. 8 oz. (1 cup) 8 oz. (1 cup) 6	4 lb. 32 oz. (4 cups) 32 oz. (4 cups) 24	 For macaroons, combine almond paste and sugar. Add enough egg white to slacken paste sufficiently to go through large pastry tube. Individual macaroons should be the size of a 50-cent piece when placed on unglazed paper. Bake in oven at 325 F. for 20 to 25 minutes. Place 1 macaroon, soaked in cream sherry, in a champagne glass. Fill glass with trifle custard and sprinkle with crumbled macaroons. Top with whipped cream flavored with dark



Glen Oaks Country Club — Old Westbury, N.Y. STUFFED CLAMS

(An Italian recipe for lovers of oregano and garlic)

Ingredients		Method
Basic recipe (see bottom of this page)	1 recipe	 While preparing basic recipe, stir in oregano, garlic, and thyme before the bread crumbs are added. Cover clams in their shells with the mixture and bake
Oregano Garlic, finely chopped Thyme	3 tbsp. 3 tbsp.	in oven at 400 F. for 15 minutes. Serve with lemon wedges.
Clams	1 tsp. as desired	

Chef Pearsall's Basic Recipe For Seafood Stuffing

(Seafood stock flavors fried bread crumbs to make a light, fluffy stuffing)

sp. 2 sp. 1 lb. sp. 1 lb. cups 6 qts. aste to taste aste to taste aste as needed	 Sauté onion in butter. Stir in flour. Stirring constantly, gradually add stock until mixture reaches the consistency of very light cream sauce. Add salt and pepper to taste. Gradually stir in bread crumbs until the mixture is the consistency of stiff mashed potatoes. Beat in liquid fat to make mixture light and fluffy.
5 5 1	sp. 1 lb. sp. 1 lb. cups 6 qts. sste to taste sste to taste



STUFFED CLAMS

Louisville Country Club — Louisville, Ky.

BEEF IN HORSERADISH SAUCE (Sour cream, horseradish, and big chunks of tender beef make a beautiful stew)

Ingredients	8 portions	24 portions	Method
Beef stew meat, cubed Salt Pepper Browned flour* Onions, chopped	3 lb. 2 tsp. ½ tsp. 1/3 cup 2	9 lb. 2 tbsp. 1½ tsp. 1 cup 6	 Season beef with salt and pepper, dust with with flour, and place in a buttered casserole. Top with onions and pour the stock, water, and Worcestershire sauce over all. Cover tightly and cook slowly in oven at 300° F. for 3 hours
Beef bouillon or stock	1 No. 1 can 1/3 cup 1½ tbsp. 1½ cups 3 tbsp.	30 ounces 1 cup 4½ tbsp. 4½ cups ½ cups	until the meat is very tender. 3. If necessary, reduce the sauce by boiling rapidly. 4. Just before serving, stir in the sour cream and horseradish. Do not allow mixture to boil. 5. At the Louisville Country Club this is served with toasted french bread, broccoli, and sherry torte.

^{*}To brown flour, heat slowly in a medium oven or in a heavy skillet on top of the range, stirring frequently to prevent burning.

Dallas Country Club — Dallas, Tex.

ELOISE WALKER'S FAMOUS HUSH PUPPIES (Serve with any kind of fish or alone as an hors d'oeuvre)

Ingredients	16 portions	160 portions	Method
White corn meal White onion, medium-sized,	½ lb.	5 lb.	 Combine first 7 ingredients. Rub in the vegetable oil. Bring water to a hard boil and mix about two-
finely chopped Chives or young scallion tops	1/3	3	thirds of it into the hush puppies. 4. Gradually add boiling water to a consistency that can be rolled for frying.
(optional) Bacon, fried,	1 tbsp.	½ cup	 5. Shape into 2½-by 1-inch cylinders. 6. Freeze for future use, or fry in deep fat at
crumbled	2 tbsp. 1 cup 360° F. immed	360° F. immediately.	
Granulated sugar	1 tbsp.		1941 Miles and American Committee and America
Baking powder	2 tsp.	3 oz.	
Salt	½ tsp.	1 oz.	
Vegetable oil	1/4 cup	2½ cups	
Water	2 cups	5 qts.	
Peanut oil, to		of Emirbil amelically an	
deep fry	as needed	as needed	

Atlanta Athletic Club — Atlanta, Ga.

FROZEN LAYER CAKE WITH EGGNOG SAUCE
(Cinnamon-sugar icing with macaroon crunch and pecans frosts a cake layered

with whipped	ice cream. The	frozen cake goe	es to the table with eggnog sauce.)
Ingredients	1 cake	6 cakes	Method
Cake flour, sifted Granulated sugar Milk powder	4 cups 2 cups 4½ tbsp.	5 lb. 6 lb. 8 oz. (1¾ c.)	 Combine flour, sugar, milk powder, salt, baking powder, and shortening. Slowly add the water, eggs, vanilla, and egg shade. Pour into greased 16- by 24-
Salt Baking powder Shortening	1 tsp. ½ tsp. 1 c. plus 1-1½ tbsp.	2 oz. ³ / ₄ oz. ³ / ₄ lb.	inch sheet pans. (Single cakes can be baked round and layered in 3 spring-form pans.) Bake in pre-heated oven at 400° F. for 35 minutes. Cool. Cut cake in sheet
Water Eggs. Vanilla Egg shade or yellow food coloring	34 cup 2/3 cup 1 tsp. as needed	4½ cups 3 lb., 8 oz. 2 tbsp. as needed	pan into four strips. 3. Spread each layer with cinnamon-sugar icing made by combining icing ingredients with a beater. Arrange in aluminum foil-lined mold as follows: cake, whipped ice cream, cake. Freeze.
CINNAMON SUGAR IC Confectioner's sugar Shortening Water	CING 3 cups 1/3 cup ¼ cup	5 lb. 1 lb. 12 oz. (1½ cups)	4. When cakes are firm, unmold and frost tops and sides with cinnamon-sugar icing, then pat mixture of macaroon crumbs and ground pecans into frosting.
Vanilla Cinnamon Nutmeg	1 tsp. 2 tsp. ½ tsp.	2 tbsp. 2 tbsp. ½ tsp.	Refreeze. Serve with eggnong sauce. 5. Mix all icing ingredients together with wire beater.
DECORATION Macaroons, crushed	1/3 cup	2 cups	
Pecans, chopped	2 tbsp.	3/4 cup	
WHIPPED ICE CREAM			
Ice cream	1 qt.	6 qts.	Whip ice cream to consistency of soft ice cream; use flat beater and start slowly.
EGGNOG SAUCE Vanilla pudding, cooked	2 cups	3 qts.	7. Combine all eggnog sauce ingredient to sauce-like consistency and desired
Coffee cream Dark rum or	1/2 cup	3 cups	flavor.

to taste

rum extract

to taste



BEEF IN HORSERADISH SAUCE

Wine and brandy can enhance your



New idea for a wine list: fifth bottles of premium wine decorated with a wine list label and placed on each table.

Service personnel training programs, such as those run by Mel Flyer (facing page), prepare club employees for selling and serving wine and brandy. One important facet (below) calls for learning to evaluate the color and brilliance of the wine. Ever-increasing costs have become a fact of life in club operations, and managers have had to perform some feats of magic to keep their clubs and resorts in the black. Increased dues and special assessments are temporary ways out of the spiraling cost dilemma, but new business growth is what's needed to put a club operation on the road to long term profitability.

A well-managed wine and brandy merchandising program offers a proven method for bringing new and impressive profits into your operation. An effective program here can return as much as 50 percent on sales. Compared to other products regularly marketed through golf facilities, a good inventory of wine and brandy requires a modest investment both in dollars and space. Secondly, offering a wide selection of premium wines and brandies brings the extra dividend of added prestige.

In 1976, Americans consumed 378 million gallons of wine, an increase of almost 24 percent in the past 5 years. Most important, though, is the fact that restaurant wine sales make up the largest and fastest segment of growth within this wine boom. Are you getting your share of this high-profit business? The approaches and sales techniques I'm going to describe here should get you well on the way.

Mel Flyer is national accounts manager for Fromm and Sichel, Inc., exclusive worldwide distributors of The Christian Brothers wines and brandy.



profits as they enhance diners' meals by Mel Flyer



Within the big shift to wine is a second critical trend: the great popularity of white wine. You see it everywhere: the traditional cocktail at lunch and dinner being replaced with a glass of chablis or chenin blanc. Clearly, the time is ripe for club managers to tap the exciting profit potentials in the wine and brandy business.

Making the most of this opportunity for new profits requires a genuine and continuing commitment by management to a full-scale aggressive wine and brandy sales program featuring premium quality products. Once a manager is determined to make premium wine and brandy basic ingredients in the club's total "product mix," everything else comes into line very quickly.

Launching a new profit center

Step one in putting together a sales effort on wine and brandy is the determination of which type of program to pursue. There are three basic programs:

- 1. Wine list.
- 2. Carafes.
- 3. By-the-glass.

"An effective wine and brandy merchandising program can return as much as 50 percent profit on sales."

Each of these types of program has advantages and disadvantages, and let's take a quick look at both sides of the coin in each category. First off, selling wines through a wine list makes great sense economically: you can achieve a better markup here than with almost any other type of program. Also, a handsome, well-constructed wine list brings an added degree of sophistication to your dining

There are a few disadvantages in basing your wine sales efforts strictly around a wine list. This approach calls for a high degree of salesmanship on the part of waiters/waitresses - selling from a wine list presupposes a wine-knowledgeable staff and clientele. A wine list by itself on the table (with no additional merchandising aids) is an ineffective way of selling. Finally, wine lists require extensive inven-

Selling wine by half and full carafes has its good and notso-good points, too. Carafe sales tend to cut into bottle purchases, but wine by the carafe is a very profitable route to consider: 50 percent is a standard minimum markup. This method requires a minimal inventory, and best of all, it provides your service personnel with an easy way to sell wine. When serving carafe wines, there are no corks to pull, service is fast, and your people need to know just three types of wine: red, white, and pink. Obviously, waiters and waitresses have fewer inhibitions about wine service when using the carafe approach.

Wine-by-the-glass is most profitable when tied in with a carafe program. The percentage of markup here is greater than on wine sold by the bottle. Experience has shown that the average restaurant patron is more receptive to purchasing a glass of wine than a bottle of wine. Promoting wine by the glass also eliminates confusion in pairing the appropriate wine with various entrées. It can also produce additional revenues from convention and/or party groups. A program chairman or party host might balk at the notion of placing a few bottles of wine on the tables, but he will generally agree to serving a glass of wine to everyone for an additional 50¢ per person. Wine by the glass keeps the consumption of alcoholic beverages within the bounds of moderation and adds a note of elegance to the event.

The keys to success

It's fairly obvious that since each of these three methods has some unique benefits, a balanced approach — a combina-

A brief history of wine

by David C. Ludwig

David C. Ludwig has authored many articles and columns on wine for local and national publications and has conducted many wine tastings and lectures along the East Coast. He is presently New Jersey Wine Master, Wine Club of America.

"A day without wine is a day without sunshine,"
Henry IV, king of France and Navarre, is said to have observed more than 400 years ago. Yet this great warrior was referring to an elixir that was already 6,000 years old, for the story of wine predates Western civilization.

The exact time, place, and person who discovered wine is lost in the dark mists of the past. We do know, however, that the earliest records of the Egyptians clearly show that wine was widely used by 4000 B.C. It was possibly the Phoenicians, that intrepid race of seafarers, who were responsible for spreading the fame of wine, along with a great many other accourrements of civilization, to the semibarbaric peoples of the Mediterranean shores.

As these peoples gradually developed their own cultures, they assimilated the basics of winemaking, varying these basics with grapes and methods best suited to their particular area. The Greeks, for instance, originated the practice of filming the top of their wine with a layer of pine resins to preserve it. This practice led to the present-day Greek national beverage, retsina.

With the rise of the Roman Empire, winemaking for the first time left the shores of the Mediterranean and spread northward to what was later to become France and Germany. The vineyards of France, in fact, produced

The Bettmonn Archive



wine of such high quality that the Roman emperors banned the growing of grapes in France to prevent competition with the wines of Italy.

In the fifth century, as the Teutonic hordes swept across the borders of the empire and the pall of the dark ages fell over Europe, the tending of the vineyards fell into the stewardship of the various orders of Catholic monks. Their simplistic lifestyle was responsible for establishing the tradition of excellence in the early vineyards of Europe.

In the eighth century, when Charlemagne temporarily restored some semblance of order to the West, one of his first loves and chief concerns was establishing the vineyards in Burgundy that to this day bear his name (Corton-Charlemagne).

Throughout the remainder of the Middle Ages, after the heirs of Charlemagne divided his empire into small warring feudal states, the assorted overseers of the vines, both cleric and layman, experimented, tested, and slowly developed the various grape types and viniculture methods used to produce the fine wines that we know today.

But an essential ingredient for the final perfection of wine had to await the second half of the 17th century, when, according to tradition, a Benedictine monk named Dom Perignon, the father of Champagne, devised a cork to replace the ineffective pegs and rags that were used to stopper bottles, thus producing a method of sealing bottles from the air.

In the 18th and 19th centuries, quality viniculture

German woodcut from the 15th century shows man and woman harvesting grapes for winemaking.



centered in France, but quality control, as we now know it, was sometimes lacking. With the approach of the International Exposition in Paris in 1855, it was decided that something should be done about this. So in Bordeaux a system was devised to rate the various vineyards on the basis of consistent dedication to excellence.

Under this system the finest vineyards of the region were grouped in five categories or growths. As important as these classifications were and are, it was not until the 1930's that the full weight of law was placed behind quality control with the passage in France of what are known as the laws of appellation d'origine, under which qualifying wines may be labeled appellation controlee.

In this century Italy and Germany have joined France in establishing strict, nationwide controls over the production of wine.

In this country much progress has been made, in the last several years, toward establishing national regulations regarding wine production and labeling.

On the subject of U.S. wines, considering that prohibition was repealed only 40 years ago, their quality and variety is amazing.

Remember that the only way to learn about wine is to taste some and there is no substitute for pulling a cork. Only as you expose yourself to different wines will you begin to understand what makes one wine better than another, and you will recognize the complexity that characterizes the finest wines.

tion of all three — yields optimum results. An attractive wine list coupled with carafe service and wine by the glass sets the stage for a first-rate wine sales effort.

We're now at a critical point in launching the effective wine sales effort: training your personnel. After all, nothing happens until someone takes the initiative in a selling situation. Successful managers devote a great deal of time on a continuing basis to helping their service personnel become very knowledgeable about wines and to stimulating a positive, pleasantly aggressive sales attitude among their staffs.

A logical starting point here is to assemble all the information you possibly can about those wines you have decided to offer through an appropriate combination of the three programs outlined earlier in this article. This will involve inviting winery representatives to present their quality stories at personnel training sessions. Emphasis should be placed on providing your people with as many quality facts — sales ammunition — as possible so they are well prepared to discuss all the wines in your inventory. Motion pictures, slide programs, winery literature, label information, and tastings all play an important part as vehicles of this basic information.

Once the basic "script" information is thoroughly reviewed and understood, your service personnel are now ready to rehearse the wine selling situation: that moment when they involve their customers in a dialogue about wine. A proven technique to use here is role playing. During these basic training sessions, arrange for your waiters/waitresses to switch roles (one plays the restaurant patron, the other a service person). This enables your people to try out various sales approaches in a nonthreatening situation. These rehearsals must be aimed at putting service personnel at ease with the physical handling of wine bottles and carafes (pulling corks, pouring, etc.). I suggest you use dummy bottles and carafes filled with water so that personnel will get used to managing at-the-table wine service without using actual products.

Of course, the main thrust in all sales training work should be to educate waiters/waitresses to take a pleasant and positive sales approach. They should always present the customer with a choice of something or something — not something or nothing!

Here's an example. It's far more effective to ask "Shall I bring you a large or small carafe of red wine with your steak?" than to timidly inquire "Would you like a carafe of red wine to go along with your steak?" The first approach offers the customer a choice between a large or small carafe of wine; the second approach offers no choice — it's either "a carafe of wine" or nothing!

Please remember that only one or two training sessions a year won't accomplish much. It is necessary to hold refresher wine/sales training programs a minimum of every other month; ideally you'd conduct them once a month. In addition, special short sessions are called for when you introduce a new wine into your inventory. Ongoing educational programs are the best way to convince your people that management regards wine as a terribly important part of the total sales effort.

It is essential that sales personnel develop a goaloriented attitude toward their work, and management can encourage this through a well-organized incentive program. Goals can be based on dollars and/or unit sales, and where legal, cash rewards may be offered for outstanding performance. A system which measures results is a basic element in any incentive program. Friendly competition among your employees, when combined with a method of measuring success (such as a weekly or monthly sales progress chart), will get your wine sales program off to a flying start. Permitting employees to participate in the profit goals of the club or resort also does wonders for overall morale.

Merchandising the way to profits

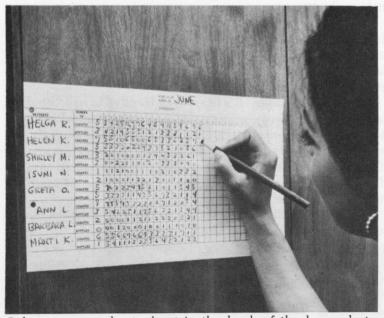
There are lots of things a club manager can do to raise the "wine consciousness" of his clientele. For example, when reprinting your menu, list a specific wine suggestion direcly beneath each entrée (include bin number, a description of the wine and price - or, if you wish, carafes can be listed instead of bottled wine). Setting every table with 81/2-ounce, all-purpose wine glasses puts the suggestion of wine at your patron's fingertips.

Here are more promotional techniques to stimulate interest: informative wine lists (complete with phonetic pronunciation of wine names/types, go-together suggestions, maps of viticultural regions throughout the world), wine-inrack displays around the dining room, and single fifth bottles of wine on every table will serve as effective sales stimulators. Menu clip-ons highlighting various wine specials ("Wine of the Month") and placemats imprinted with wine selections are also effective reminders.

Incidentally, a growing number of club and resort operators are using the "Wine of the Month" promotion to market test a new wine before adding it to the wine list.

Turning after-dinner coffee into gold

Often neglected in looking for new areas of profitability in club/resort operations is the after-dinner experience. A



Sales progress charts, kept in the back of the house but where all waiters and waitresses can see and use them, encourage friendly competition among personnel and promote greater sales of wine.

round of after-dinner drinks (especially coffee/brandy combinations) can return as much or more profit as all of the dinner checks at a table. A calorie-conscious public has put the crimp into the profit-rich add-ons of fancy desserts. Creating something special with coffee is a way to give the customer what he wants and yet create additional profit. Right now, with coffee prices continually going up, it costs you from 10 to 15¢ and more to serve a cup of coffee. Here are three ways to make something special out of coffee:

Venetian Coffee Add 1 ounce of brandy to a 6-ounce cup of hot black coffee. Add 1/4 teaspoon sugar. Top with a mound of

whipped cream. Serve.

Brandy Café Pour 1 ounce of brandy in a 6-ounce

cup of hot black coffee. Add twist of

lemon peel. Serve.

Cappuccino Add 1 ounce of brandy to 6-ounce mug of Caffe D'Vita mixed with boil-

ing water. Top with whipped cream. Serve.

In addition to these coffee drinks, brandy, that versatile spirit, goes beautifully in these two winners:

Pour 11/2 ounce of brandy to 1/2 ounce Mexicali Kahlua (or other coffee liqueur) in

> a 25-ounce snifter. Fill snifter half full of ice cubes and pour brandy and Kahlua over cubes. Serve well

chilled.

Combine 1 ounce of brandy and 1 The Asp ounce Amaretto in a 25-ounce

snifter half filled with ice cubes.

L'Orange La Salle is a refreshing change of pace for after dinner:

L'Orange La Salle

Place scoop orange sherbert into glass, pour in 4-5 ounces Christian Brothers Chateau Salle and add splash of soda.

For health food enthusiasts, how about offering an individual cheese and fruit board with a half carafe of sherry or port as a way to make the after-dinner experience truly memorable?

There are many ways to merchandise the after-dinner experience to club/resort patrons. You can list these "dessert drinks" under desserts on the menu; use special coffee boards imprinted with an offering of your unusual coffee drinks; include the price of a novel glass or mug in the price of the drink and encourage your guests to take the item home as a souvenir; use table tents and menu clip-ons as reminders or create drama by flaming a few of these brandy specialties.

Turning coffee into a high-profit item is easy. These ideas will help create larger tips for waiters/waitresses, increase your check averages, prevent customers from tying up tables by asking for coffee refills, and will add excitement and elegance to any club or resort.

Human engineering makes happy — and efficient — kitchen workers

by Arthur C. Avery, Ph.D.





The kitchen has been the forgotten stepchild of American foodservice. Designed largely by people who have never worked in them, foodservice kitchens have been notoriously unpleasant places in which to work. Employee turnover has been high and has reached 400 percent per year in some cases, while productivity per worker has been very low.

However, a number of restaurant chains have found that they can improve worker productivity and, to some extent, employee turnover rates, by application of industrial engineering techniques to improve methods and human engineering to improve the working environment. It is the latter we'll discuss in this article.

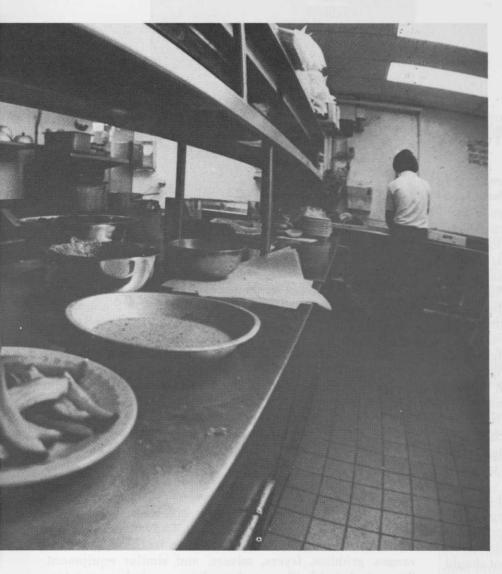
Unions and other worker-oriented groups will devote a considerable portion of their efforts to improving quality-of-worklife (QWL) as they see this as an important part of worker satisfaction and productivity. Human engineering of the worker environment is one way of achieving this.

Kitchen atmosphere

Sanitary white or non-dirt-showing black are undesirable and should never be used in kitchens. Preferable as kitchen colors are soft yellow or peach, as they show both the worker's skin and the food in more lifelike colors. Walls should have about the same light reflectance as the skin

Arthur C. Avery is currently a professor of restaurant, hotel, and institutional management at Purdue University. He was director of the Food Science and Engineering Division of the U.S. Navy for 15 years and has authored two books and more than 260 magazine and journal articles. He is a past president of the Society for the Advancement of Food Service Research and the International Society of Food Service Consultants.

"Work center design must consider the worker both as a mechanism and as a flesh-and-blood human."





(about 50 percent). The white or off-white ceiling should reflect 80 to 85 percent of the light that strikes it, and the floor should reflect over 25 percent.

Lighting should be glare-free and provide a minimum of shadows. While 50 footcandles on the worksurface is satisfactory, some states require 70 to 75 fc. At the clean end of the dishwasher where films on dishes must be checked or in the office where columns of fine figures must be added, 100 fc may be used. Storerooms can get by with 30 fc and hallways with 10 to 20 fc. In fine dining rooms, incandescent lights are best, but in most other foodservice applications, fluorescents with a pink tinge are best from a worker stand-

Too much light must be avoided, as it reflects off the shiny stainless steel and aluminum and causes eye-tiring glare. The stainless steel should be satin-finish: No. 4 except in serving lines, where No. 7 may be used.

The floors should be of nonslip materials. Among these, terrazzo tile with a light grit surface is best for most kitchen applications. Heavy grit should be used where much soil or grease accumulates. A few restaurants are using rubberbacked carpets in most kitchen locations as they find it is nonskid, is easier on workers' feet and backs, lowers kitchen noise, and may pay for itself in a year in reduced dish breakage. Before one considers this, the laws of local health departments should be checked.

The kitchen temperature should be set to keep the worker's skin at 91 to 93° F. To do this, a few operators are air-conditioning kitchens as they find it adds about 15 percent or more to the worker's productivity in the summertime. In places where this is not possible, many restaurants use air exchanges from outside the kitchen. The least

desirable method is to draw the stale air from the dining room, and the most desirable is to have an inlet fan on one side of the kitchen and an exhaust fan at the top of the wall on the opposite side. The exhaust fan plus the hood exhaust in total should be slightly greater in air handling volume than the intake so that the kitchen is kept under slight negative pressure. This will obviate the kitchen odor migration into the dining room.

Some kitchen ventilation is limited to the hood exhaust. Under these circumstances, fans are used to improve working conditions by evaporating the worker's perspiration. Under these deplorable conditions, care should be taken to have the fans blow on the fronts of the workers' bodies as they have twice the number sweat glands there that they have on their backs, where most fans are directed. Lowering the kitchen humidity with dehumidifiers in summer helps to make poorly ventilated kitchens more bearable.

Noise, too, must be considered. High kitchen noise levels cause tension, tiredness, and high accident rates. Communication is made very difficult. Noisy pieces of equipment should be isolated in rooms adjacent to the kitchen or the noise should be dampened by the use of batts of fiberglass. Acoustic ceiling tile can be used where allowed. Undersides of tables, particularly those in the dishroom, and potwashing drainboards can be coated underneath with a mastic that will dull the clatter. Plastic mats over table-dish contact surfaces helps as well. In severe cases of noise, coarse material can be hung in a sound-trapping honeycomb overhead. One college hung carpets on the walls of a noisy dishroom while others have hung coarse washable draperies.

Use of plastic dishes dulls dish clatter, while careful

handling of dishes lowers noise. Under no circumstances should dishroom personnel be permitted to dump dishes out of busing boxes onto steel tables.

Work center design

Work center design must consider the worker both as a mechanism and as a flesh-and-blood human. There is a set of conditions where each worker is most productive, and average conditions under which most workers are effective. For example, the worker does light work best if his body is comfortably erect, his upper arms are at his sides, and lower arms are parallel to the ground. His work should be one to three inches below elbow height. Higher than this forces his upper body back, and a lower work level causes him to lean forward. In either, muscles are kept tensed and thus tire quickly, forcing the worker to pause frequently. Light work tables for women should be adjustable in height from 37 to 39 inches and for men they should be 39 to 41 inches. Because of the need to throw the back into the work, heavy work tables should be at a height where the wrists bend when the arms are hung by the side, or 34 to 36 inches. This height is also fair for using tabletop devices. A better height for these is one where the loading or operating height is slightly below the elbow.

Most kitchens have no provision for workers to be seated while working, as they are thought to be more productive when standing. Such is not true — as research has proved. If the worker is to sit at least part of the time, he should have a chair that can be used at a light work table. The seat should be adjustable between 24 and 31 inches from the floor and be on a swivel. A foot support should be flat in design and placed in front of the seat. The chair back should be about 13 inches wide and 8 inches in depth and be adjustable so that it just makes contact with the back below the shoulder blades when the body is in working position.

Sitting at a table which is 28 to 30 inches high, the seat should be at a height where the under side of the legs with feet planted in front of the seat just makes contact with the front edge of the chair. The seat should incline slightly to the rear. The front edge of the seat should average about 15 inches for women and 16½ inches for men. Form-fit seats should not be used, as all forms are not the same. Seats should be flat and made of hard padding covered with non-slip material.

Drawers are wasteful of worker time and are damaging to the tools which are kept in them. More to the point for equipment storage is the use of shelves over the work area with those tools used by the right hand placed on shelves over the right side of the area, and those used by the left hand placed over the left side of the area. Again, checking should be done, for some sanitary regulations prohibit utensil exposure.

The work area itself should be laid out with the bulk of the work within 24 to 26 inches of the worker's belt buckle in an arc of about 70°, as this is about as much as the eyes can see accurately without turning the head. One sees best in an

arc of about 30° directly in front of the head.

Pot sinks are often back-breakers with bottoms 12 to 14 inches from the floor. Actually, the sink bottoms of the wash sinks should be at thumb-tip height when the arm hangs by the side, or about 27 inches from the floor for women and 29



inches for men. Soak sinks can be about 6 inches deeper if small utensils are not placed in them. The front edge of the sink should be below elbow height, or 37 to 38 inches high, and should not be over 2 inches wide.

The front edges of steam jacketed kettles should not have the rim over 36 to 38 inches from the floor and the draw-off should be high enough to allow most pots to be placed under it.

Stacking of roasting ovens three high should not be considered, as the top deck is too high for a short man to see into the roasting pans and the cooks burn their bare arms on the drop-down door while reaching into the oven compartment. The bottom oven is equally difficult to use as the cook cannot see into the oven and burns himself on the top of the door frame. The top and bottom decks are used but 25 percent of the time. Much better is using two decks and placing them on a 20-inch base.

The work center is best arranged so that the worker can move from left to right around his work area as he progresses on preparation of the food. To avoid unnecessary walking and carrying, it is best to have work tables beside ranges, griddles, fryers, mixers, and similar equipment. Steam jacketed kettles can have hang-on shelves or tables beside them. Ovens, refrigerators, steamers and broilers should have tables in front of them for one motion loading and unloading. In addition to the work table, the ranges should have a sink and water source beside them to avoid having to carry heavy and dangerously hot pots around the kitchen.

Design for the older worker

Many a foodservice operator who complains about the shortage of capable workers would find a ready supply of older, eager workers if he would but plan for their use. Actually, the 60+ worker is more productive than the 18-to 25-year-old worker, but he needs a little special consideration. He doesn't see as well as when he was younger, he needs a little more warmth, he can't lift as much and may be slightly farsighted, deaf, and forgetful.

To provide a productive environment for him, first give him his instructions in writing. Raise his room temperature to 75° to 80° F. (fuel supply permitting). Increase his lighting 10 to 15 footcandles and keep him out of a noisy room. He will not be able to carry heavy loads, but he'll surprise you in that his arms will still be strong. He will produce well, have few accidents, and probably be absent very seldom because, in many cases, your job may be the last that is offered to him.

In conclusion, it is well to remember that what was covered here barely skims the surface of what can be done by good human engineering to increase the productivity of the foodservice worker. Just knowing that someone thinks enough of him to go to this trouble will help to some extent, and the labor saving measures will help even more.

Expand your menu—and your revenues—with convenience foods

by Herman Zaccarelli, foodservice editor

How can convenience foods help you?

First, you can expect to minimize your present labor problems by changing the pattern of work load. Second, you can offer a more varied menu with fewer skilled hands. In fact, with frozen, freeze dried, canned, and irradiated convenience products, you can offer year-round many foods that were not possible at any price just a short time ago. But perhaps the greatest benefit of all is the standardarization of food quality with convenience foods. Let's take a closer look at this important forward step in foodservice. Important from your standpoint as a foodservice operator, and important to your members and customers from nutrition and aesthetic standpoints.

How convenience improves quality

It might be a good idea to start with a general definition of maximum food quality: the peak of perfection in all food preparation which is established and maintained when maximum (optimum) standards are applied to selection and purchasing of raw materials; skill in handling, technique of production, and attention given to presentation of the finished product.

A particular definition of food quality is: the standard



Successful food operators have always recognized the importance of establishing standards of food quality control: careful purchasing specifications; properly designed equipment and restaurant layout; tested recipes; explicit service instructions; and proper selection of qualified employees and well-organized training programs for all levels of food production and service employees.

With rising food costs and a reduced labor force, it has been necessary to discover new ways to maintain these high quality goals. That's where convenience foods help.

Quality-conscious manufacturers are your allies

These manufacturers have spent millions of dollars researching the best methods of obtaining and preparing food

"Convenience foods are meant to be adapted and modified to meet individual preferences of service. That's where the final flavor comes in."

in order to achieve a particular result. The raw materials which are used are selected and prepared with the skill and knowledge of scientific development. Sanitation practices in food handling are supervised throughout production and packaging. The nutritional value of food is guarded carefully, and the aesthetic elements protected with methods not available to the individual commercial kitchen.

That raises another question: Who determines the standards for convenience foods?

You do, just as you always have, by the products you buy and the manufacturers you patronize. But now these manufacturers are your partners in preserving quality. They have taken over the processing and preparation that used to be done by our own kitchen staff. By testing convenience foods, just as you would any new food or recipe before making it standard in your operation, you keep manufacturers aware of your quality requirements.

Convenience foods are meant to be adapted and modified to meet individual preferences of service. That's where the final flavor — the individual stamp of personality — comes in. But so far as quality is concerned, convenience foods represent the greatest forward stride in foods in many years.

How to program convenience foods into your menu

The most dramatic adaptation to the total convenience food concept is made when a brand-new operation is set up with foods and equipment synchronized. However, it is much more common for a successful on-premise operation to switch over gradually, replacing old equipment with modern convenience-oriented equipment in a normal phasing-

out process. This conversion is often a "by guess and by golly" one, and therefore not as satisfactory and economically successful as it could be.

To clear this hurdle smoothly, it is necessary to follow a prescribed routine of programming. To start, evaluate your situation realistically. See where you stand now. Define the goals that you want to achieve, the areas where you want improvement. Then proceed to implement them.

The following outline will assist in a program of evaluation leading to a successful changeover.

I. Analyze the present system of operation realistically.

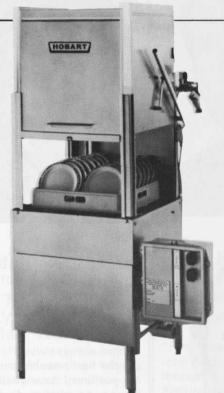
- A. Menu pattern planning
 - 1. Cycling
 - 2. Adequate selection
 - 3. Item popularity
 - 4. Customer satisfaction
 - 5. Relationship to equipment
 - 6. Labor productivity
 - 7. Product availability
 - 8. Standard quality
 - 9. Price range and average check
- B. Food costs
 - 1. Purchasing specifications
 - 2. Ordering system
 - 3. Receiving and storage practices
 - 4. Item costing
 - 5. Inventorying
 - 6. Portion standardization and control
 - 7. Utilization of leftovers
- C. Labor costs
 - 1. Accuracy of figures
 - 2. Fringe benefit costs
 - 3. Productivity goals
 - 4. Cost of training and turnover of employees
- D. Equipment and space conditions
- 1. Location of equipment
- 2. Maintenance of equipment
- 3. Sanitation procedures
- 4. Depreciation value
- 5. Expected cost of replacement
- E. Overall morale of operation
 - 1. lob satisfaction

II. Define improvements indicated and where increased use of convenience foods would help.

- A. Menu improvement
- B. Food cost goal changes
- C. Labor cost goal changes
- D. Equipment purchases or relocation cost
- E. Sanitation and standardization goal changes
- F. Overall morale improvement

III. Plan how to meet new goals. Decide how new problems will be handled.

- A. Use of available information from food companies, consultants, reference materials
- B. Check efficiency foods availability
- C. Comparative testing of efficiency foods under premise-controlled conditions
- D. Use of food processors to help in programming
- E. Use of purveyors to aid in training of personnel in use of new methods
- F. Indoctrination plan for employees
- G. Check of sources of reliable supply
- H. Put plan into action and check results



Door-type dishwasher

The AM-12 dishwasher is equipped with a self-flushing stainless steel strainer pan and an extra upper final rinse nozzle, solid-state electronic controls and motor protection, and clog-resistant wash arms. Available from Hobart Corp. in straight-through and corner models.

Circle 233 on free information card



Golf in a glass

A natural for the club bar (and to sell in the pro shop), 19th Hole glasses from Vincent Lippe have a golf game in the bottom of the glass. A waterproof compartment holds tee, green, hazards, and ball. Shake the glass to drive. The glasses are clear acrylic and are stackable.

Circle 232 on free information card

Showcase: food & beverage service

Leather look

Angelica Uniform Group, Inc., offers a group of coordinated garments with the look of leather but the light weight and easy care of an all-polyester fabric. Included are a princess-line dress, wraparound skirt, and long-sleeve blouse for women and a yoked shirt-jac for men. A vibrant Persian print accents the leather look.

Circle 230 on free information card



Dogs golfers love to bite

Made only from fine beef and pork trimmings, mildly seasoned with a trace of cure flavor blended from sugar, salt, and spices, Armour Star hot dogs can be served a multitude of ways. They come from Armour Food Co. in 1.6- and 2-ounce portions, packed in 10-pound cases.

Circle 231 on free information card





freestanding. Circle 234 on free information card

laminate. Seats can be wallmounted or