news

From the Director 3
FAPC hosts second annual Media Day 3
McGlynn and Flynn win top honors 3
IFT...A learning experience for FAPC 4
By Chuck Willoughby
Making a splash with electrolyzed water 5
By Peter Muriana
Macwana wins IFT award 5
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business & marketing

Who wrote this cheese? 6
By Corey Stone
An Oklahoma oil crisis 8
By Corey Stone

from the test kitchen

Choosing the appropriate sweetener 7
By Darren Scott

inside the fapc

FAPC faculty member named associate professor 10
By Lacie Stockstill

quality management

Leadership 12
By Jason Young

Frito-Lay is telling consumers it will eliminate 60 million pounds of saturated fat per year from their diets by switching from cottonseed oil to sunflower oil. But, there is a deeper and more intriguing story to be told here. Instead of an oil crisis, Frito-Lay is facing a corporate identity crisis.

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Innovation that drives business expansion has always been a challenge to the food industry. Innovation in the food industry can be defined very broadly to include newly developed products that have not previously existed. Many marketing specialists have suggested innovation includes small changes in long-existing product lines that either enhance margins or increase sales volume.

Regardless of how it is defined, innovation seems to be the new mantra of the business world. A recent article in Business Week discussed this new focus in business, indicating six-sigma manufacturing control is rapidly becoming so common it is not a competitive advantage. Further, global manufacturing, commoditization of products and services, and broad access to information minimize many advantages that businesses had developed. Business Week indicated the answer American businesses have discovered is innovation. It is becoming accepted as the foundational approach to business growth and greater profit margins.

The formula for successful innovation is the selection of very bright and motivated non-traditional thinkers to lead innovation, an aggressive acceptance and sharing of all ideas, the involvement of employees with think-time and what-if opportunities, and the identification of the vision, the rules of the project, the timelines, and the energy to morph ideas toward an innovative end.

What does this article and this innovative movement mean to the Oklahoma food industry? Certainly, there are many things one can learn. But, at least, it emphasizes we must be aware of our customers’ needs, think like they do, allow the generation of new and different ideas, and insert them successfully into our own businesses. If you have not made it someone’s job to be responsible for innovation in your business, possibly you should do it now.

The FAPC has technical and business specialists with a unique ability to think creatively. Get us involved with your business. Let us help you expand your business and increase your profitability.

McGlynn and Flynn win top honors

William McGlynn, FAPC Horticultural Products Processing Specialist, was awarded the Herman Hinrichs Pecan Citation Award during the 76th Oklahoma Pecan Growers Association annual convention. The award, named after former OSU horticulturist and plant breeder Herman Hinrichs, is presented annually to recognize outstanding contributions to the Oklahoma pecan industry in the fields of research and extension outreach.

Kyle Flynn, FAPC Meat Plant Manager took first prize in the 2006 Sharpest Knife in North America Competition during the 67th American Convention of Meat Processors. Contestants were given a dull knife and had three minutes to sharpen the knife. Half of the proceeds benefited the American Association of Meat Processors Stephen F. Kruts Scholarship Fund, while the remaining half was awarded to the organization of Flynn’s choice, the Oklahoma-Texas Meat Processors Association.

FAPC hosts second annual Media Day

The FAPC hosted its second annual Media Day, “Making Headlines: Media Meets FAPC 2006.” Approximately 75 media representatives and industry personnel from across the state came to Stillwater to learn how the FAPC is involved in adding value to Oklahoma.

Ron Hays, founder of the Oklahoma Agrimet and co-founder of Clear Channel Ag Networks, moderated the event. Brent Kisling, State Director for U.S. Department of Agriculture Rural Development in Oklahoma, served as the keynote speaker.

The attendees participated in four round-robin demonstrations. These included a Kona coffee sensory panel, the identifying and tasting of different meat products, the production of Abe’s Creations peanut butter syrup, and the dehydration of beef jerky.

The event also featured FAPC client and research booths. The booths included Spencer’s Smokehouse, RitzRims, Upper Red Fork Innovations, Lasley Family Farm, Guymon Extracts, a winery feasibility template, converting sweet sorghum into ethanol, and potential uses of probiotics in dog food.
Several of FAPC faculty and staff had the opportunity to attend the Institute of Food Technologists (IFT) 66th Annual Meeting in Orlando, Fla. Each year, IFT brings together approximately 20,000 food industry professionals from around the world to participate in a four-day event packed with valuable programming.

This year there were 100 topic sessions and more than 1,400 presentations. Most of these sessions revolved around four general themes: food allergens, bioterrorism and food defense, globalization, and functional foods.

In the “Trending Toward Tomorrow: Mega Market Experts Look Ahead” session, major trends discussed included general consumer eating trends and behaviors, as well as health and nutrition, restaurant, international, new products, and culinary trends.

The session outlined some interesting data that revealed what consumers actually do rather than what consumers say they do. For example, is coffee consumption at breakfast up or down? By looking at all of the Starbucks on almost every corner, the Dunkin Donut’s gourmet coffee program, etc., one would think it is up, right? Wrong. Coffee consumption is actually down because the growing trend for a caffeinated beverage in the morning has moved toward soda pop.

Eating out is down, too. While sales data show the consumers’ portion of the dollar spent in the restaurant arena continues to grow in contrast to expenditures in the grocery store, the number of meals eaten at home has increased.

Data shows that 77 percent of meals are at home while 21 percent are in food service. The data suggests this provides ample opportunity for grocers to expand their deli/takeout programs.

What about health? More and more healthy options are being advertised in fast food restaurants, but the food product of which consumption has skyrocketed is fried chicken! Not always termed as such, fried chicken is becoming known by other names such as chicken patties, nuggets, strips, chunks, popcorn chicken, etc. On the positive side, sales in organic and sugar-free categories are growing.

The session also highlighted trends in restaurant menu offerings. The distinction between casual and mid-scale dining is becoming blurred. Menus in the casual dining (fast food) arena now offer items described with premium buzz words such as artisan, imported, fresh, seasonal, crispy, creamy, homemade, and, yes, organic.

Fine dining establishments are moving towards local branding, which is identifying local regions and even local farms as sources for their fresh, high quality entrees and sides.

Growth in organic food purchases has grown more than 20 percent in the past year. By 2005, it had become a $13 billion industry, and it is projected that by 2009, the organics industry will reach $20 billion, which is more than 50 percent growth over four years.

The natural market is currently a $79 billion industry. This growth could be due to an increasing attitude of well-being and concerns about food additives (See pie chart).

Finally, the session provided participants with some global market information. Local markets abroad vary greatly among countries and regions, thus marketing internationally requires companies be flexible in their business plans and marketing strategies as they pertain to specific target market regions. Perhaps the most common underlying attitude worldwide is the consumers’ reason not to buy an item. This reason being they do not believe the claim being made, particularly health claims.

Examining trends in the market is important when developing marketing strategies and certainly before introducing a new product. Trend data can provide an awareness of consumer attitudes and aid in guiding decisions about business planning and marketing. Also important is examining trends throughout the industry and not just in a particular category. Examining the whole picture can help one identify potential opportunities in the future. Success in the ever-competitive food industry requires a great deal of homework, careful consideration, and the will and energy to endure the efforts necessary to get a product into the hands of the consumer.
Sanaquel LLC, a new venture company based in Bristow, Okla., is developing a business venture based on liquid assets—based on water, that is, or rather electrolyzed water.

Electrolyzed water (EW) is the product of electricity being applied to a weak brine (salt) solution, and this electrolytic process results in the formation of hypochlorous acid (HOCl) which has an antimicrobial effect on microbes (bacteria, molds, fungi, viruses). Hypochlorous acid is similar to hypochlorite (OCl-), which is generated by bleach but is more effective depending on the pH.

Although it is not a new process, few companies are demonstrating Sanaquel LLC’s vision to implement EW throughout a processing environment using automated generators, PVC plumbing, and spray nozzles to mist and fog the liquid as a sanitizing solution into bacterial-sensitive areas in processing facilities. Sanaquel LLC felt so strongly about the potential applications for EW they obtained exclusive licensing of a patent (US #6610249) covering the application of EW for the meat and poultry processing areas.

In the meat and poultry processing areas, electrolyzed water is considered generally-recognized-as-safe, and regulatory levels based on free chlorine content are established for raw red meat and poultry. However, there are currently no regulations addressing the use of chlorine on ready-to-eat meats, so this will require FDA approval.

The FAPC is currently working with the company to demonstrate efficacy and obtain regulatory approval in a greater array of applications.

Meanwhile, Sanaquel LLC is establishing “start-to-finish” processing environment treatment for environmental and food contact surfaces starting with electrolyzed water generators, storage tanks, and plumbing and spray nozzles that can reach throughout the length of a processing area or building.

The use of EW does not stop with meat and poultry. It is currently being examined in other processing areas including sanitary washes for fresh produce, vegetables, fresh cut melons, and shell egg processing and processing environment. There are even applications addressing use of EW in animal production quarters as well as in their drinking water.

A big advantage of EW over other types of antimicrobials is EW is an innocuous treatment solution that is safe to spray even in the presence of humans, which can hardly be said for other sanitizing solutions that present respiratory problems and must be used after a production shift.

Sanaquel LLC is even contemplating bottling the sanitizer for sale to those who may not be able to afford the equipment. The company has already been sending 30- to 50-gallon containers out to interested parties in food processing.

FAPC research won top honors at the 2006 Annual Meeting of the Institute of Food Technologists in Orlando, Fla. Sunita Macwana, a Ph.D. candidate working with FAPC Microbiologist Peter Muriana, won first place in the IFT Biotechnology Division Graduate Paper Competition with her presentation titled “A novel approach for rapid identification and sequencing of different bacteriocins produced by Lactic Acid Bacteria based on a practical ‘immunity class.’”

“Besides winning first place in the biotechnology division, Sunita’s presentation was selected as one of the five finalists in the IFT Student Association Phi Tau Sigma paper competition.”

Macwana completed her undergraduate work in India and earned a master’s degree in microbiology from OSU. Macwana’s research focuses on bacteriocins, or inhibitory proteins, produced by lactic acid bacteria that are considered “natural antimicrobials” and may enhance the safety of foods.
any organizations utilize productivity workshops and programs to promote a positive corporate culture. The FAPC has a monthly internal educational series, Quality 101, which is a part of our continuous improvement program. Last year, FAPC faculty and staff participated as a group in Stephen Covey’s workshop, Seven Habits of Highly Effective People. Over the course of a decade or so, I have been introduced to several similar programs and tend to now approach these with considerable caution.

**Traits of a Worthwhile System**

As the Seven Habits session drew near, I found myself trying to decide what I wanted to achieve in exchange for spending three days of my life in Covey’s program. I discussed my anticipation with others and found they had similar concerns. We all regarded the upcoming event a little differently: some with anticipation, some with hesitancy.

Having personally experienced several of these programs, both those worthwhile and otherwise, I found myself approaching the workshop with a great degree of objectivity mixed with some subtle optimism. We had made the commitment to bring Seven Habits to the FAPC, and I was determined to get a great deal out of it.

In the past, I had not always brought my own excitement into similar workshops, although I always felt more optimistic than my colleagues about the situation. If some of my peers were apprehensive now, I could certainly empathize.

At one point during a long road trip to an on-site client visit, a team of us FAPC specialists began discussing what it would take for our days in Seven Habits to be a success. We soon digressed into a more broad critique of the entire productivity genre. The conversation boiled down to four central qualities that must exist within any such program. The program must be:

- Simple
- Novel
- Compelling
- Pertinent

**It Must Be Simple**

In general, any successful system for productivity in the workplace will be fairly simple and straightforward. After all, the idea is to provide clarity of focus, which will obviously be difficult if the message or tools are complex or difficult to implement. A simple message and systematic implementation (or what I call simplification) are key to ensuring the longevity of the system once the training is complete.

While simplicity is important in form and message, it alone certainly does not solve the productivity equation. Breaking things down into simple, digestible portions can turn out to be condescending and profoundly ineffective. Most managers can drill down through tasks or processes and uncover the basic units of work that occur at a ground level, but then so could those responsible for handling those tasks. It is likely the associate performing the task has already thought of, and implemented, many simple ways of getting the task done more quickly or effectively and to present this information to him would be insinuating he is not capable of those most basic thoughts. It is not enough for the idea to be simple, it also must be novel.

**It Must Be Novel**

Novelty makes a simple thing profound. This is what makes a great mystery so enjoyable. A great mystery always has a simple answer that we only uncover once the complexities of the events surrounding that answer have been unraveled. As we watch, we are keenly aware that the answer is available to us at all times and that the very environment is a collection of clues leading us towards that answer. It is exciting to discover the key piece of information and deduce the secret of the story.

Now, if the answer were obvious, would we still be intrigued by the mystery? Few people would feel

*continued on page 14*
Choosing the appropriate SWEETENER

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aybe because it is a hot summer day, maybe because it is a special occasion, or maybe it is just because--ice cream, soft drinks, cakes, and candy are all foods that can satisfy our desire for something soothing and sweet. However, there are many ingredients that can be responsible for that sweet taste. In fact, there are a variety of sweeteners available that can provide nearly the same flavor. The following is a just a small segment of all the different sweeteners that are available.

High potency, or high intensity, sweeteners have increased in popularity due to the demands of health-conscious consumers. These ingredients mimic the sweetness of sucrose, but they do it at such low concentrations that even though they may be caloric, they contribute little or no caloric content. Despite their rising popularity, there are still consumers who have reservations about products that use these types of sweeteners.

Asulfame potassium (Sunett) has a clean sweet taste; however, it may become bitter at high concentrations. It has wide application in confections, and because of its high solubility and synergistic properties, it is ideal for blends with others sweeteners. It is very stable in its dry state. In solution, it is stable over a wide pH range, with some slight loss of stability below a pH level of 3. It retains its sweetness through all commonly used food and beverage manufacturing processes.

Nutritive sweeteners are still the most popular category of sweeteners and should not be overlooked. In addition to their ability to provide clean, sweet flavor, they also can perform a variety of added functions, such as enhancing texture and appearance and extending shelf life. There is concern among some consumers regarding the link between over-consumption of these types of sweeteners and obesity.

Sucrose, often called “sugar,” is the most commonly used sweetener. The average American consumes 20 teaspoons of sweetener per day with sucrose making up approximately 40 percent. It can help soften the texture of baked products and also can act as a preservative by binding up molecules of free water and reducing water activity.

High-fructose corn syrup has a bland, sweet flavor, and its sweetness is perceived faster than either glucose or sucrose. It can enhance beverages because it tends not to mask their flavor. It also can enhance the consistency of many beverages by providing “body.” It is available in various grades, as well as in a crystalline form.

Honey is made from the nectar gathered by bees from a variety of flowers and plants which is responsible for its variable flavor. It is typically sold as a liquid but is also available in a thicker form, as well as dry granules. In addition to providing a characteristic flavor, it also can add a characteristic color. It can act as a humectant in baked products and a binding agent in products such as granola bars. Honey may crystallize over time.

There are a variety of considerations to be made when choosing the appropriate sweetener. Nutritive and nonnutritive sweeteners may be nearly indistinguishable under one set of conditions but quite different under another. Processing parameters and product specifications can influence their effectiveness, and their application also can be limited by consumer acceptance.

With careful deliberation of technical needs and consumer considerations, the appropriate sweetener can be chosen that will provide the proper balance of flavor and function.

\footnote{Prepared Foods, January 2006.} \footnote{Stagnito's New Products Magazine, May 2005.} \footnote{Sweeteners: Alternative, 2000.}
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n May 3, 2006, USA Today reported Frito-Lay had begun a national rollout of Lay’s brand potato chips cooked in sunflower oil, as opposed to cottonseed oil, which had been used primarily since 1990. In a move described in the article as “industry-jarring,” Frito-Lay executives expected to eliminate 60 million pounds of saturated fat per year from servings of Lay’s products. The Lay’s brand is number one in a U.S. snack market worth more than $15 billion, spurring conjecture that changing such a popular formulation is a risky venture.

But, as is always the corporate case, there is a deeper and more intriguing story to be told here. For instance, sunflower oil that Frito-Lay has chosen will carry an even greater premium. Also, because of the qualities of an oil with a lower level of saturated fat, the frying life of sunflower oil is significantly less than cottonseed oil, further increasing the cost to Frito-Lay.

Considering the snack food industry is largely price-driven by its nature, Frito-Lay must truly be confident in the health benefits it claims for its newly formulated product line, for this does not appear to be a cost-conscious venture. This move seems to tell a story of concern for public health, but in fact, it is more likely a tale of image, positioning, and corporate identity.

A Brand on a Mission

PepsiCo, parent company to Frito-Lay, is undoubtedly a snack food and beverage juggernaut. With sales in the tens of billions, PepsiCo products are recognized worldwide. In 2005, PepsiCo acquired several foreign snack food companies to add to its profile. All of this seems in accordance with its mission, which opens as follows:

“We aspire to make PepsiCo the world’s premier consumer products company, focused on convenient foods and beverages. We seek to produce healthy financial rewards for investors as we provide opportunities for growth and enrichment to our employees, our business partners and the communities in which we operate...”

Like most businesses, PepsiCo operates for the profit of its stakehold-
published. Even the FDA sees saturated fats as a grey area, and despite having a recommended daily allowance, no one is really sure of any health benefit attained by reducing saturated fats.

**About Cottonseed Oil**

The chemical qualities of oils high in saturated fats make them more capable of withstanding the conditions of cooking at high temperatures. This is a very attractive property to Frito-Lay, whose business is frying chips. Cottonseed oil is a prime frying oil, offering high quality and long life.

John Radcliffe, a professor of nutrition and food science and registered dietitian at Texas Woman’s University’s Institute of Health Sciences in Houston, has been publishing studies praising the health benefits of cottonseed oil for years. In a 2001 journal of *Plant Foods for Human Nutrition*, Radcliffe suggested cottonseed oil may be more effective than corn oil in lowering serum cholesterol levels. In 2003, Radcliffe expanded his comments to include benefits of cottonseed oil as a replacement for corn oil in reducing the effects of prostate enlargement. Oddly, self-proclaimed “health-conscious” Frito-Lay converted its Doritos, Cheetos, Fritos, and Tostitos brands from cottonseed oil to corn oil in 2004.

**Getting Mileage from the Oil Change**

So with a $15 billion market in the balance, the snack food leader is now switching to sunflower oil, an oil which performs worse and has no provable health benefits. Bad business? Let’s consider the PepsiCo mission again. PepsiCo seeks to produce healthy financial rewards for investors.

Business people recognize there are various ways to do this. One is to be more profitable and pass on that profit to shareholders in dividends. Another way is to appear more profitable and drive share prices up, directly affecting shareholder portfolios. The latter option is a clear example of the power of corporate image.

**Image**

The appearance of a consumer-conscious food company is extremely appealing to the public, and initial sales are likely to remain strong throughout the summer simply on the strength of what appears now to be a simple marketing ploy. Many consumers, choosing to remain ignorant of available facts, will be turned on to snack foods with a newfound freedom from the previous guilt associated with these products.

The truth of the matter is salty snacks contribute less than 3 percent of the total saturated fat consumed in a person’s diet. This means even a one-third reduction in fat in this category, significantly more than Frito-Lay hopes to achieve across its product line, would be less than a 1 percent impact on a consumer’s diet. Further, salty snacks are rarely an item most health-conscious consumers seek out, so the move seems more cosmetic in its feel-good message to hard-core snackers. Truly, Frito-Lay could do more for the health of its customers by encouraging them to eat something else entirely.

**Identity**

There is no doubt that the market is headed towards healthier foods. At the same time, considering the increasing costs of living and the seeming necessity of two-income households, it is also headed towards more convenient foods.

Frito-Lay is positioning itself to hold on to a snack food industry that is quickly becoming a dinosaur. If Frito-Lay is to stay profitable over the long term, it must innovate and open new categories of foods which are both truly healthy and convenient. The alternative just might leave Frito-Lay customers with the chips on their shoulders.
Nurhan Dunford joined the faculty of the FAPC and the OSU Department of Plant and Soil Sciences as an oil/oilseed chemist in the winter of 2001. “I am interested in oil and oilseed processing research because of the challenges involved in the field,” Dunford said. “There is this public misconception that fats and oils are bad for you. But in fact, edible oils and fats are essential nutrients for human growth and maintenance of good health.”

In less than five years, Dunford’s exceptional performance in the research field, involvement in various professional organizations, and graduate student advising have earned her tenure and a promotion to associate professor. “To me, tenure means recognition of my professional achievements by my peers,” Dunford said. “It is a great honor to receive tenure at OSU. However, it is not going to change the way we work in my group. Scientifically sound, innovative applied research and technical assistance to producers and processors in Oklahoma will continue to be our top priorities.”

A secure position as an OSU and FAPC faculty member is not the only benefit Dunford is looking forward to from her acquisition of tenure. “I do hope that this promotion will help me to attract new, top-notch graduate students, postdoctoral fellows, visiting scientists, and external research funding,” Dunford said.

Prior to coming to OSU and the FAPC, Dunford earned a bachelor’s degree in chemical engineering from Middle East Technical University in Ankara, Turkey, and then a master’s degree in chemistry from Ankara University also in Turkey. Dunford’s studies then brought her to North America where she earned both a Master of Engineering and a Ph.D. in food process engineering from the University of Alberta in Alberta, Canada.

“My experience as an engineer and scientist encompasses more than 20 years, including positions in Turkey, Canada, and the United States,” Dunford said.

After completing her education, Dunford worked as a research chemist for the U.S. Department of Agriculture, Agriculture Research Service, National Center for Agricultural Utilization Research in Peoria, Ill. Dunford’s research interests include many facets of the oil/oilseed industry. One of these is environmental safety.

Today’s commercial edible oil processing is based on organic solvents which are highly flammable and explosive when mixed with air. Public concerns and, consequently, government scrutiny over the environmental hazards of organic solvents and residues in oil/oilseed-derived products have catalyzed the search for alternative solvents for edible oil processing.

The ideal solvent would be inexpensive, nonflammable, nonexplosive, noncorrosive, nontoxic, and readily available. Carbon dioxide (CO$_2$) meets these requirements, so Dunford’s research group is examining supercritical fluid technology as an alternative technique for the conventional oil/oilseed processing methods.

Super critical carbon dioxide (SC-CO$_2$) has been the choice solvent for the majority of food-related applications. The unique advantage of SC-CO$_2$ is easy removal of solvent from the extract.

“During my employment at the USDA, I designed a pilot scale SC-CO$_2$ oil fractionation column, and we developed a process that allows us to enrich/concentrate phytosterols in vegetable oils during refining,” Dunford said.

Phytosterols are bioactive compounds that are naturally present in vegetable oils and possess cholesterol-lowering properties. The process allowing for enrichment and concentra-
tion of these compounds was patented in 2004.

“I designed a second SC-CO\textsuperscript{2} oil fractionation column for my research program at the FAPC,” Dunford said. “I was able to incorporate several design improvements on this second column based on my experiences from the first prototype.”

Michael Eisenmenger, Dunford’s former student, has studied SC-CO\textsuperscript{2} extraction and fractionation of wheat germ oil using the column Dunford designed. Eisenmenger’s research showed Dunford’s patented process does efficiently remove undesirable free fatty acids from crude wheat germ oil while retaining and concentrating desirable bioactive compounds such as vitamin E and phytosterols.

Dunford plans to continue supercritical fluid technology research by developing plans for a large-scale system for industrial production. Recent interests in biofuels has caused a surge in construction of new ethanol production facilities, which will lead to a significant increase in CO\textsubscript{2} supply, Dunford said.

“We believe that SC-CO\textsuperscript{2}-aided processing has a tremendous potential for utilization of this excess capacity and production of high purity value-added oil/oilseed-based products,” Dunford said.

Amogh Ambardekar, one of Dunford’s Ph.D. students, is studying omega-3 oils. Fats and oils rich in omega-3 fatty acids have been shown to possess various health benefits, which include preventing coronary heart disease and aiding brain development and growth. These oils, however, are highly susceptible to oxidation that deteriorates flavor, increases the risk of rancidity, and reduces shelf life of the product.

“As Amogh’s research will help us to better understand oxidative and thermal stability of these oils and provide us the scientific data for development of new oil stabilization techniques,” Dunford said.

Dunford’s research also includes working with producers and processors in the state of Oklahoma.

“One of the Extension projects that I am very excited about is working with the Oklahoma Farmers and Ranchers Energy Enterprises who received a USDA Value-added Grant to explore the feasibility of a canola crushing operation,” Dunford said.

One of Dunford’s long-term goals is to develop a wheat biorefinery system in which wheat would be harvested and processed into a number of different value-added products utilizing the total wheat biomass including endosperm, bran, germ, and straw.

Dunford is currently trying to set up a collaboration with Kyushu University in Japan to study the utilization of wheat straw as a lignocellulosic feedstock for biofuel production by using genetically improved fungi and enzymes and the recovery of high value products from ethanol production process by-products.
“Our plans miscarry because they have no aim. When a man does not know what harbor he is making for, no wind is the right wind.”

– Seneca (4BC-AD65)

Food processing establishments strive to meet customer requirements through product specifications, food safety, sanitation, and regulatory and quality programs that must be implemented as part of contract requirements. But how many times are only the minimum levels targeted?

Once the product is shipped and the letter of specification or regulatory requirement met, is this where responsibilities to the customer end? Better yet, is this where internal responsibilities to one’s establishment end? The common mindset is, “We have done enough. We have provided the customer with what they asked! Here is a product that meets specifications, and here are the third party or customer audit reports with minimum requirements met.”

This happens much too often in all sectors of business and manufacturing. The question should be posed, “Can we implement our own company-driven programs that go beyond customer expectations and satisfy all of our stakeholders?”

The answer to this question is, “With leadership, yes.” But the answer is not in telling management to try Total Quality Management (TQM) or to try to implement the Baldrige Criteria. Leadership in a total quality driven environment must come from top management commitment. A company’s management must provide complete support to a total quality program, conveying a consistency of purpose and continuity to the program organization. The top management must lead the charge, excitement, and enthusiasm at all levels of operations.

At the 2006 American Society for Quality World Conference in Milwaukee, Jamie Houghton, chairman of Corning Inc., received the Juran Medal. In his acceptance speech, Houghton reflected on his quality journey. In the 1980s, the early years of incorporating quality, many people in his organization thought the initiative would relinquish and disappear.5

Houghton, however, recognized the significance of implementing a quality culture within his company and was undeviating in his more than two decade-long drive to lead continuous improvement through quality initiatives.

Leadership includes providing vision, direction, values, and purposes and inspiring and motivating people to work together with a common vision and purpose.1

An exemplary leader of Staying the Course for Quality in Oklahoma is Paula Chapman, Bama’s Chief Executive Officer. According to the 2004 Bama Baldrige Application Summary, “Since taking the reins in 1984, CEO Paula Marshall-Chapman has implemented the Bama Quality Management System (BQMS) based on Deming philosophies, as well as Bama’s Performance Excellence model, and initiated a transformation of the Company’s culture by championing Principle Centered Bama Culture, a
Staying the course for quality: Enduring and undeviating

Stephen Covey tenant. These serve as guiding principles today.

There is a common theme in both of these quality driven companies, Bama and Corning Inc.: Staying the Course for Quality: Enduring and Undeviating. This course is not easy. Implementing total quality programs are not easy. Leadership of top management to the leadership of every individual employee of the establishment creates the true total quality culture.

**Organizational Leadership Roles**

Organization leaders provide strategic direction to guide and inspire employees to improve performance. One way to breakdown strategic direction is vision, mission, goals, and objectives.

**Vision** – The vision answers where the organization wants to go or what it wants to be. Vision serves as the light in the distance toward which the organization is always moving. Everything about the organization, including its structure, policies, procedures, and resource allocation, should support the realization of the vision.

**Mission** – A good mission statement will answer, “Who are we?” and “What do we do?” The mission statement should define the establishment and who the customers are.

**Goals** – Goals state the endpoint or condition toward which management will direct its efforts and resources. The organization needs to be able to determine that goals are achieved, and to do this, the goals must be measurable and supported by the company’s information system.

**Objectives** – These are specific, measurable statements of future expectations that include deadlines. There can be multiple objectives for a single goal.

Together, goals and objectives work to support the establishment’s mission and move the establishment towards its vision to create a steady course of purpose and quality. It is not enough for organization leaders to spend a day, a week, or even several months to spell out a strategy for the establishment. The leaders are putting on record what the desired culture, guiding principles, and quality will be for their internal and external environments. Once the vision, mission, goals, and objectives are documented, it is time for the leaders to “walk the talk.” This is where many projects fail because leaders provide “lip service” only and not true support. It is now time to take the strategic direction and cascade it down through all the employees to the most recent hire.

Deming’s 14 points

1. Create constancy of purpose toward improvement of product and service.
2. Adopt the new philosophy.
3. Cease dependence on inspection.
4. End the practice of awarding business on the basis of price tag.
5. Improve constantly and forever the system of production and service.
6. Institute training.
7. Adopt and institute leadership.
8. Drive out fear.
9. Break down barriers between staff areas.
10. Eliminate slogans, exhortations, and targets for the work force.
11a. Eliminate numerical quotas for the workforce.
11b. Eliminate numerical goals for people in management.
12. Remove barriers that rob people of pride of workmanship.
14. Take action to accomplish the transformation.

Deming, a recognized quality “guru,” emphasized quality starts at the top. Leadership must be intimately involved in the process to see that the quality standard is translated into the minds and hearts of everybody in the organization.

Stephen Covey says, “Proactive leadership springs from an awareness that we are not a product of our systems, that we are not a product of our environments, that those things powerfully influence us, but we can choose our responses to them.”

With leadership, an organization can implement its own company-driven programs that go beyond customer expectations. With leadership, that same organization can move its quality programs to total quality and can go beyond the minimum standards the customers expect, moving to a course of quality that is enduring and undeviating towards performance excellence.
a sense of accomplishment in such a situation. This is no different from a productivity training standpoint. If the answer is obvious, presenting the same answer in even simpler terms will only be insulting. I have certainly experienced this previously in my career.

In contrast, to have a novel thing presented in simple terms can be exhilarating. If a person is led to draw the new, simple conclusion himself, the effect is even more powerful. It is a “Wow!” moment, one of wonder and excitement. During these moments, we wonder how we had not thought of such a thing before and often want nothing more than to go back and implement our new finding.

Novelty does not necessarily mean a brand new idea. It could very well be an old idea applied in some new way. Such a presentation causes a paradigm shift, which is a very powerful experience in and of itself. Some great mysteries have ended with our finger pointed at the main character, turning the classic “whodunit” genre on its head, and invariably we go into the next mystery with a more cautious and discriminating eye because of it. Yet, even a great mystery is very easy to ruin.

It Must Be Compelling

Even a perfectly staged mystery can be ruined by one simple act: telling someone how the story ends. If you know the solution, the mystery disappears, and with it vanishes any sense of intrigue. Likewise, a personal improvement or productivity workshop must present a simple and novel idea or system in such a way that a person is compelled to embrace it.

Like the mystery, the workshop is more about the experience of finding the answer than it is about the answer itself. If the answer is just given to you, you are much less likely to take ownership of it. In turn, you are much less likely to use those ideas since there is no sense of accomplishment in doing so.

Of course, these workshops are scheduled by owners and managers who want to see improvements in productivity, which are functions of time. The workshops fill up with people who expect to learn how to become more productive but are more worried about how they will make up for the time they “lose” in the workshop. Time is a concern for everyone involved. With time as the critical factor, given the choice of the experience of solving a problem or being given the solution right away, most people just want the answer.

This is why a program must be compelling. A simple, novel idea is always appreciated, but without a feeling of ownership in that idea, few people will be driven to use it in the long term.

Truly, many managers drop the ball here. They are amazed they can hand over the perfect systems on a platter, systems designed to make an associate’s job so simple. What they are really saying is, “Trust me, this system is so good that no one can screw it up, and if something doesn’t work, let us know. We will fix it when we can.”

Why I Threw Out the Cheese

As a foodservice manager, I was introduced to two popular programs: Dr. Spencer Johnson’s Who Moved My Cheese? and Zapp! The Lightning of Empowerment by William Byham and Jeff Cox. Both rely heavily on storytelling and metaphor to demonstrate the points of psychology they attempt to teach. Both were international successes, and millions of copies of each original book were sold. Yet, for me, the two experiences were worlds apart.

Zapp!

Zapp! focuses on the tale of Joe Mode, a manager of Department N at a company called Normal. Ralph, an employee in Department N, creates a device that transports Joe and him into the 12th Dimension where people’s feelings can be seen, albeit in very fantastic ways. Zapps are little bolts of energy that empower people, while Sapps suck energy away. Problems at Normal are caused by dragons that go around starting fires, while managers often turn into firefighters as they put them out.

While all of this seems pretty unorthodox, the story catches hold early on and effectively illustrates the things that make people happier and more productive in the workplace. The story ushers the reader through Joe Mode’s transformation from an autocratic department head to an empowering, successful group leader. Along the way, the authors build the lists of team building activities that are the real focus of the program.

Cheese

Who Moved My Cheese? is a similar fantastic tale of two mice, Sniff and Scurry, and two very little people, Hem and Haw. They all live in a maze (representative of daily life) searching for cheese (happiness or success). They all meet up at Cheese Station C, where there is a lot of cheese. Soon, however, the cheese runs out. The mice are the first to realize the cheese is gone for good, and they venture off
Being compelled to discover a novel, simple idea is very satisfying but is not a complete formula for long-term productivity. Once a mystery is solved, it becomes easy to walk away from it, no matter how satisfying the experience.

But what if the solution could be applied to unsolved mysteries, and what about mysteries that certainly loom on the horizon? For the ideas from a program to have true meaning, their value must be evident in most everyday activity of a person’s life.

**It Must Be Pertinent**

When we finish a productivity program, we want some solution that is basic enough to grasp, something we had not yet thought of and that we were eager to discover. Now, we want to be able to use it.

A solution must relate to what we do and, more importantly, who we are. We must immediately understand this idea is constantly and broadly applicable in most every facet of life. Albert Einstein’s famous equation explaining the relationship between mass and energy (E=MC²) is both novel, compelling, and quite simply stated, but it hardly affects the way most people approach their daily lives. While this does not change the importance or impact of Einstein’s work, I find it of little use when assisting a client who is trying to grow a small food business.

**Something to Chew on**

Our participation in programs such as *Seven Habits* and *Who Moved My Cheese?* does not come as a surprise to us. We know well in advance that we are going to read the book, listen to the CD, and participate in the workshop.

Understandably, we have some preconception about the experience. This may manifest itself in different ways, but I have found that most often people are hesitant, leery, or even doubtful. They expect to find general knowledge that is generally applicable, none of which will relate to what they do personally.

A successful program is presented so a participant can clearly relate the information to his own life. If the program uses storytelling as the method of illustration, the participant must be able to empathize with the main character or several characters.

Two of the programs I have participated in used storytelling almost exclusively, with (in my opinion) very different results (see sidebar this page). My contrasting experiences with these two programs taught me the importance of the points above.

Personally, I found the *Seven Habits* program to be quite useful. It met my four criteria, and as a result, I was very receptive to the message. As with all similar programs, the true change results from an internal and personal commitment, which just increases the importance that the message is simple, novel, compelling, and pertinent.

Managers and executives will be pleased with the results of programs that exhibit these four qualities. These programs provide substance and longevity of focus, leaving lesser programs looking a little more cheesy.

to find more. Hem and Haw rationalize the missing cheese to the point of conflict until Haw, unable to convince Hem to move on, goes off in search of more cheese as well.

As Haw learns about life, he scrawls his thoughts on the walls of the maze, hoping Hem will read them, learn, and then follow Haw to some new cheese. Haw does find more cheese at Station N, where the mice have been for some time. Eventually, Haw hears someone coming down the corridor, and the reader is left to wonder if it is Hem after all.

**May I Have Some Wine with That?**

Not only did I not enjoy *Cheese* when it was presented to me, I was insulted that our company had mandated it for management. In complete contrast, *Zapp!* continues to inspire me, and I find myself going back to the original book again and again. This is not a slight on Spencer Johnson’s expertise or his ability to write a compelling book. In fact, Johnson co-wrote *The One Minute Manager* with Ken Blanchard, which I consider a must-read.

The true problem with *Cheese* is that it is impossible for any intelligent person to truly empathize with any of the characters. Executives do not think of themselves as whiny little people resistant to change. However, many executives have enjoyed the story and very often require their managers to read the book. Why? I believe, just as it was in my organization, upper management felt the book was simple enough for their employees to understand.

*Zapp!* teaches more about team-building from an individual standpoint and less about personal psychology and carries a drastically different message. Nearly everyone can relate to every character in the story. After being introduced to the story, one feels inspired to evaluate his situation and carry a drastically different message. Nearly everyone can relate to every character in the story.
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