ADVERTORIAL

SPOTLIGHT ON FOOD SAFETY

Lessons Learned From The Food Safety Modernization Act

When servicing food manufacturing and hospitality industries, collaboration between PMPs, customers and quality control teams is the key to improved food safety.

INSIDE:

- » How Consumer Trends Impact IPM » The High Cost of Trap Checking
- » Scaling Your Company's Service Offerings for Maximum Benefit
- » COVID-19 and the 'New Normal' » PMPs: Consultants-In-Training



Opportunity Within A Changing Landscape

2020 has been a tumultuous year for our entire planet. COVID-19 has had a drastic impact on both our lives and livelihoods – forcing unprecedented changes in operations and logistics in nearly every industry on a global scale. Now, more than ever before, the world is adjusting to this 'new normal,' and there is perhaps a greater focus on food safety, sanitation and public health. And, while COVID-19 is not a foodborne illness, public scrutiny toward food safety and sanitation has never been greater. From farm to table and everywhere in-between, great measures are being taken to promote the safety of our food supply chain – and those who staff it.

One could argue that the sweeping increase in food safety importance we're seeing today feels fairly similar to 2011, when the Food Safety Modernization Act (FSMA) passed.

FSMA brought widespread operational changes to food safety procedures in large industries like food manufacturing and processing. But these changes were also felt by the hospitality and food service industries – two of the hardest hit in 2020. These businesses were also subject to the same regulatory pressures as their larger food handling counterparts, though at a smaller footprint.

As pest management professionals, you serve as the first line of defense for industries like food service and hospitality – and it goes far beyond pest control. Meeting modern regulatory guidelines means everyone needs to be on the same page and working in collaboration. Reputations, businesses and livelihoods are now more on the line than ever – and communication is key.

The lessons learned from FSMA, when applied to other industries, can be vital to ensuring the success of your business as a pest management professional, as well as the success of your customers.

At Bayer, we believe in opportunity within change.

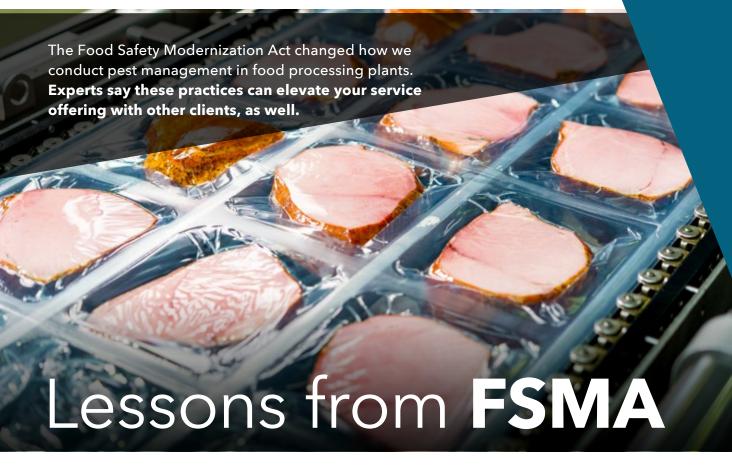
This is an opportunity to reinvent the way we service our customers and to be inspired by what comes next. We will continue to innovate, dream and explore in our quest to help support an industry that plays such a vital role on the front lines of public health – at a time that feels more important than ever. \oplus

Pete Comis

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Head of Key/National Accounts at Bayer Environmental Science





he Food Safety Modernization Act, enacted in 2011, made sweeping changes to how food manufacturing and processing plants operate to ensure food safety, including how they manage pests.

It shifted the focus from controlling pests to keeping them out of facilities in the first place.

"Preventive control is what it's all based on," said Hank Hirsch, president of RK Environmental Services, which specializes in pest management and food safety consulting for food processing facilities. As a result, these clients are more open to doing pest proofing. "They'll make investments where they may not have in the past," said Hirsch.

While the stringent regulations of FSMA are specifically geared to food manufacturers, they will likely influence how pest management is carried out in other food and beverage industry operations as well.

So, grain producers, local craft brew-

eries and bakeries are subject to federal inspection under FSMA. Even restaurants, grocery stores and hospitality accounts, which are governed by state and local laws based on the Federal Food Code, a U.S. Food and Drug Administration (FDA) guideline, may be impacted.

"There is no question that FSMA has had a trickle-down effect on the FDA Food Code and how local and state regulatory bodies enforce their own regulations," said Steven Sklare, who heads the Food Safety Academy and also operated a commercial pest management company for 25 years.

This means you have to pay attention to FSMA even if you don't treat food processing plants, said Joe Barile,

technical service lead at Bayer. "It's going to impact everything," he said.

Customers also understand the importance of FSMA and the essential role pest control plays in protecting the public's health, food and property. "Pest control is a critical component of any food safety program," observes Jorge Hernandez, vice president of quality assurance, The Wendy's Company. "Pests are not only known carriers of food-borne pathogens ... but also adulterate food themselves with foreign substances such as insect eggs, larval skins, hairs or waste. As if that wasn't enough, few things can bring down a food business faster than pests. That's why it's importance cannot be underestimated."

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FSMA SHIFTED THE FOCUS FROM CONTROLLING PESTS TO KEEPING THEM OUT OF FACILITIES. "PREVENTIVE CONTROL IS WHAT IT'S ALL BASED ON," ACCORDING TO Hank Hirsch, president of RK Environmental Services.



dation for food safety," added Charles Cortellini, vice president of research and development for Massimo Zanetti Beverage USA. "Without being able to control pests from incoming material/ingredients to the actual manufacturing floor, you cannot have any confidence in your food safety program. It really is your

first line of defense."

Whether your clients are food-processing plants, fast food restaurants or food service companies, you can elevate

TRENDS IMPACT IPM

Consumer trends like the preference for organic food can impact your integrated pest management (IPM) program.

"We have definitely seen an increase and still see increases in interest in organic foods," said Pat Hottel, technical director of McCloud Services, South Elgin, Ill. Specific rules apply to organic food makers, which mean additional challenges for the pest management firms servicing these facilities, she said.

The zero-waste movement, where food waste is repurposed – perhaps delivered to a hog farm – instead of being thrown away, can cause rat, mice, fly and bird problems. Waste generally is collected in a trailer, but how that trailer gets handled, cleaned and moved impacts pest pressure around the facility, explains Hottel. Likewise, recycling attracts pests if containers aren't cleaned properly.

Even vegetable gardens tended by employees to raise food for local food banks require scrutiny as the readily available veggies can attract rats. "When that garden goes away in October, where are the rats going to go?" asked Hottel.



RODENT MONITORING SYSTEMS PROVIDE "SOME INTERESTING INSIGHTS FOR BOTH RODENT BEHAVIOR ... AND FINDING ROOT CAUSE," ACCORDING TO Pat Hottel, Technical Director, McCloud Services.

INCORPORATE TECHNOLOGY. Digital advancements are helping the pest management industry shift to real IPM service models.

Electronic monitoring systems, for example, send remote alerts of pest activity so technicians spend less time checking hundreds of empty traps and more time inspecting for and preventing other pests.

"I'm letting technology take care of the mundane, routine tasks that really don't accomplish anything anyway, so that I can focus on solving problems," explained John Moore, corporate IPM director of Fumigation Service & Supply, whose sister company Insects Limited is developing electronic remote stored product pest monitoring and insect light trap systems.

Moore also has deployed more than 2,000 Bayer



Bayer recently added a heat mapping feature to its Rodent Monitoring System (RMS) sensors at food plant accounts.

Rodent Monitoring Systems (RMS) at food plant accounts. "I'm meeting the requirement to be compliant with third-party audits and I've freed up 80 percent of my time," he said. At one plant, this let him focus on solving a client's red flour beetle problem and prevent future infestations of this kind.

Technology also provides quick access to data analysis. Hottel has found data generated by remote rodent monitoring to be invaluable. "It provides some interesting insights for both rodent behavior as well as about our devices and finding root cause," she said.

In one instance the data helped McCloud staff learn that a plant employee was using a rodent trap to prop open an outside door. Another time, the Bayer system sent alerts when numerous traps were tripped in a plant's outdoor perimeter. "The snap traps in the most critical areas of pest activity were compromised within less than 24 hours, so it's important to have that knowledge," she said.

The technology continues to evolve and improve. Bayer RMS recently introduced heat mapping so instead of viewing a spreadsheet the client can see color-coded, graphic hot spots of pest activity and changes in rodent pressure over time.

"You can't ignore it and that's exactly what FSMA means," said Joe Barile, technical service lead, Bayer, of the ability to act fast in response to changes in pest activity.

Just make sure you sell the value of remote monitoring – how you'll reallocate your time on site to prevent pest activity – or the client will continue to view your service as being equipment based and may even want a discount since less time is needed to check the traps, cautioned veteran PMP Dan Collins.



and differentiate your service offering by employing these best practices:

EMBRACE REAL IPM. Under FSMA, food and beverage producers need a robust integrated pest management (IPM) program to fulfill the requirements of its Preventive Controls Rule, enforced by the FDA. "They're seeing IPM as a critical component in their overall food safety system," explained Hirsch.



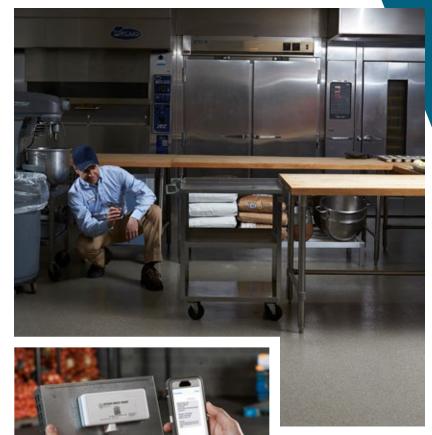
"EVERY FOOD PLANT, EVEN IF THEY'RE IDENTICAL, IS GOING TO HAVE A DIFFERENT (PEST CONTROL) RISK," ACCORDING TO VETERAN PMP Dan Collins.

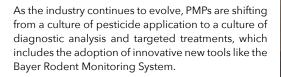
Yet many PMPs spend most of their time at these accounts inspecting traps, fly lights, bait stations and other devices. This is not IPM; it's pest monitoring, and it doesn't leave the technicians with much time to do pest prevention.

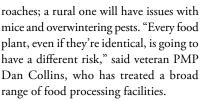
As defined by the University of California, "IPM is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques" including the elimination of conducive conditions, proper waste management, structural repairs and the targeted use of pesticides as necessary. It is just such an approach that enables PMPs, through the use of IPM techniques, to fulfill the prevention- and risk-based rules of FSMA.

IPM is not one-size-fits-all, but takes into account a facility's age, construction materials, the building design, pest history, what the facility produces, where supplies come from, how they're stored and used, and geographic location.

For instance, an urban facility will have pressure from rats and American cock-







So, if you are focused only on the trap line, you would be missing the pest activity and conducive conditions that exist away from those traps. "There are so many things in a plant or even in a restaurant or grocery store that we need to train our technicians better to find,"

pointed out Chris Del Rossi, founder of Food and Drug and the Bug, which provides pest prevention services to New England-based food and medicine producers.

For some companies the shift from the current pest management system, which emphasizes reaction rather than prevention, will be foundation shaking. "I see a very strong culture change that's coming to us. We're going to have to move from a culture of application to a culture of diagnostics," said Barile. \oplus

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Science for a Better Life



THE HIGH COST OF TRAP CHECKING

Monitoring rodent traps at large commercial facilities comes at a cost, especially if your client doesn't have a rodent problem.

Say you charge a client \$375 a week for various pest control services and you spend 80 percent of your time onsite checking empty traps. The cost of killing one mouse a year? A whopping \$15,600, said John Moore, corporate IPM director, Fumigation Service & Supply.

Technician wear-and-tear is another cost. Checking 100 empty traps a week in a facility means you've unnecessarily bent over 5,200 times, pointed out veteran PMP Dan Collins. "What food company would do 5,200 tasks with zero results?" he asked.

Remote rodent monitoring reduces pointless trap checking. It also reduces risk of injury since devices can be placed in hard-to-reach areas like drop ceilings (conventional traps require regular ladder or lift use) and

under hinged sub-floors, which can pinch fingers. The technology may even help attract new hires, as it emphasizes the industry's professionalism and growing focus on tech-savvy solutions.



ELEVATE COLLABORATION.

No longer can technicians tell clients, "Everything's fine," said Chris Del Rossi, founder of Food and Drug and the Bug. "Everything's not fine; there are lots of things to find and communicate to the customer, like conditions

they need to correct," he explained. As such, pest management companies must communicate better with clients. Larger companies may need to create account manager positions to help build these relationships.

Key client stakeholders might work at the plant and elsewhere. "You've got to get to know them," said Joe Barile, technical service lead at Bayer. Besides understanding their food safety concerns, educate them about pest prevention and how you can relieve some of these anxieties by being an important contributor to their food safety program.

Food clients may not understand what preventive service is, or that it's even an option. "They really rely on the pest control operator to be the expert," said Gina Kramer, executive director of Savour Food Safety International, which provides auditing, consulting and training to food and beverage manufacturers.

It is the pest control industry's responsibility, she said, "to educate those in the food and beverage industry as to what other services or alternatives are available" so

they can truly implement an IPM system.

Moore agreed. "Being an engaged partner in food safety and brand protection is what the quality and safety people in the food industry are screaming for," he said.

Don't forget to build relationships with the people who procure pest management services to help them understand preventive pest management so you can move away from commoditized pricing models.

Likewise, the pest management industry needs to educate auditors, as current audit systems focus on compliance, not prevention. "The food companies are going to have to get away from these goofy audits and rely on science-based systems versus traps every so many feet apart," said Collins.

Good training remains essential. The relationship between PMPs and clients "can get ruined in a heartbeat by a technician just not paying attention," said Barile. And documentation, which has always been important in food accounts, has taken on an even higher priority with FSMA.

McCloud Services uses electronic logbooks, which make documentation accessible to multiple layers of personnel. This includes McCloud management, quality and technical teams, as well as the client's key maintenance, operations, sanitation and management staff. This accessibility provides "extreme benefits" when it comes to monitoring pest trends and problems, said Pat Hottel.

The thoroughness of documentation remains key. "If a program is not a written program, it doesn't exist; if an event is not recorded and documented, it did not happen," reminded Steven Sklare of the Food Safety Academy. Be sure to record pest sightings and the corrective actions you've taken in response, like what you did to resolve an existing program and eliminate the problem's root cause.

FAR-REACHING IMPACT. Within the next five years, Barile expects the pest management services provided to food clients to be "radically different" than what most companies are delivering today.

The focus on prevention will influence pest management elsewhere, as well. "I'm seeing similar talk about FSMA-like culture regulation in healthcare," said Barile. As such, PMPs may see regulatory or client-driven changes to pest services in hospitals, clinics, nursing homes and doctor's offices.

Barile also anticipates FSMA-like platforms being enacted at schools and for low-income housing. This could be a boon to the industry if PMPs embrace the shift as an opportunity and not view it as another regulation to manage, he said.

FSMA is the industry's wake-up call, said Moore. "I think with the implementation of FSMA, it is highlighting the fact that our current system and the way we do things is broken," he said.





Consultants-in-Training

PMPs must raise their game when it comes to training employees on preventive pest management practices.

ood industry clients expect professional-grade, advisory-based pest management service now, more than ever, due to the Food Safety Modernization Act (FSMA). They need consultants, not trap checkers; most get the latter.

"Generally, pest control service providers haven't been looking at [training] from a FSMA lens," said Angela Anadappa, founder of the Alliance for Advanced

Sanitation, a non-profit organization that conducts food safety research, assessments and training. As a result, few pest control companies have enough people trained to provide the required level of service, she said.

This training costs money but the return on investment is huge, said Joe Barile, technical service lead at Bayer. "You're going to be able to communicate with people in a different way; you're going to understand their world, their anxieties, their pain points and as such, adjust the service accordingly and be a much more efficient service provider to them," he explained.

Experts said employees need training in pest biology, equipment and materials, as usual, but also in the following areas:

FOOD SAFETY. Understand what a food safety program is. "It helps you to have a relevance that you can pull in in terms of your pest control background," said Anadappa. As such, you can provide a better service because you understand your client's challenges and you can speak the same language as the plant's food safety and quality assurance managers.

Likewise, make sure employees comprehend the current good manufacturing practices (cGMPs) at the plant, which dictate their actions on site.



Pest management professionals must train both their clients and field staff on the benefits of preventive pest management services.

LOCATION-SPECIFIC PEST RISKS.

To prevent pests at a facility, employees



LEVERAGING TECHNICAL RESOURCES FROM BAYER

Bayer supports your preventive pest management initiatives for the food and beverage industry and backs up its product portfolio with deep technical resources.

"In that regard, they're certainly putting themselves out there to take the lead in supporting IPM for the food industry," said Hank Hirsch, president, RK Environmental Services.

The company is educating food manufacturers on the value of electronic remote rodent monitoring. "It's really helpful when Bayer on a higher level reaches out to food processors and manufacturers and exposes them to the idea. It makes it a lot easier for me then to go in and show them the value," said John Moore, corporate IPM director, Fumigation Service & Supply.

Bayer is also leading the conversation about pest management's role in food safety at pest management industry conferences and meetings including GFSI and IAFS conferences, Food Safety Americas meetings hosted by BRC Global Standards and at educational



Bayer backs up its product portfolio with deep technical resources including training videos, product guides, case studies and labels.

sessions held by organizations like the Grain Elevator & Processing Society and National Environmental Health Association.

have to understand the risks, which are unique to each site. "The types of pests associated with different geographical areas and product-related risks are very important for them to know," said Anadappa.

Pest risks vary by building design and material, by the equipment and raw materials used at the site, and the structure's pest history. Such insights help employees perform inspections and identify where pest proofing is needed to prevent potential pests from entering the facility.

EXCLUSION. From replacing seals on bay doors to bird work, food clients want more pest proofing. "They're more willing to make an investment in preventive programs and they understand there can't be a tolerance for pest issues," said Hank Hirsch, president of RK Environmental Services. As such, employees need to learn exclusion. "We have developed more programs for exclusion, more training on exclusion to help meet the demand and the acceptance on the part of the food industry to allow us to do those services," said Pat Hottel, technical director, McCloud Services.

DATA ANALYSIS. Train employees to use technology, such as a remote electronic rodent monitoring system, and to understand the data it generates. Rodent monitoring systems allow PMPs to monitor rodent activity in real-time and determine historical trends in an account, resulting in better-informed and more highly targeted trap placements.

Not only is this key to helping clients prevent pest infestations, but learning these skills appeals to younger workers. "That is how you can give them better jobs, so they become much better skilled," said Anadappa. As a result, you may find it easier to attract and retain professional talent to your company, she said.

STANDARDIZED REPORTING.

"We need to calibrate technicians for food safety," said Chris Del Rossi, founder of Food and Drug and the Bug, a pest services company. They must be trained to

BENEFITS OF DATA ANALYSIS

Knowledge is power. Nowhere is that more apparent than when servicing high-end commercial accounts, which is where the Bayer Rodent Management System (RMS) comes in. The RMS is an innovative, wireless network of sensory devices that digitally displays activity and trap status to the operator. As it detects and alerts, it captures time-stamped data that can help PMPs improve how they protect their clients' facilities. When inspecting rodent traps becomes an automated process, PMPs gain the freedom to focus on prevention and audit readiness, becoming a valued business partner for their clients.



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observe and document pest activity in a consistent, standardized fashion, instead of reporting the same situation differently. A systemized approach also must guide the preventive and corrective actions they underrake.

FSMA carries a legal burden. "We can be named in a lawsuit if you don't adequately address the pest issue at hand through documentation and treatment procedures," said Dan Collins, a frequent speaker at industry educational events. Field staff need to understand they are culpable, he pointed out. In addition, manufacturers can be fined or jailed if they know about but do not correct a deficiency. This is called the Park Doctrine. It permits the government to prosecute employees for corporate misconduct when they are in a position of authority and fail to prevent or correct a violation of the Food, Drug and Cosmetic Act (FDCA).

CLIENT EDUCATION. Train employees to teach food clients how to be "more observant of their own sanitation, structural and storage conditions that are pest conducive," said Del Rossi. For instance, clients may not know that stored product pests can come in from outdoors, as well as arrive in supplies.

"Our job is to make the quality and food safety people better at their job and make them look good," reminded John Moore of Fumigation Service & Supply. **BIDDING.** Being a low-cost provider is not in your best interest when it comes to FSMA and food safety. "The industry needs to spend far more time inside food accounts and the only way to do that is to charge enough for the time and the talent spent inside these food accounts," said Del Rossi.

Bidding these jobs by spreadsheet is a mistake; you've got to analyze the specific

risks of a facility by inspecting it in person, said Collins.

For large projects like bird work, help clients calculate the return on investment. "If they can justify it to their finance department, then they can make those significant changes that will benefit them in the future," explained Gina Kramer, who leads the Savour Food Safety International consultancy. \$

REMOTE MONITORING:

A TECHNOLOGY WHOSE TIME HAS COME

According to recent report from FlexJobs and Global Workplace Analytics, "there has been a major upward trend in the amount of people working remotely in the U.S. In the span of one year, from 2016 to 2017, remote work grew 7.9%. Over the last five years it grew 44% and over the previous 10 years it grew 91%.



"THIS IS A GOOD OPPORTUNITY FOR SERVICE PROVIDERS ... TO MOVE FORWARD WITH THEIR IPM PROGRAM AND CONSIDER THE VALUE OF IMPLEMENTING NEW IOT TOOLS, SUCH AS REMOTE MONITORING."

- Joe Barile, Technical Service Lead, Bayer

That trend has become even more pronounced during the age of COVID-19 with millions of Americans now working from home in the wake of stay-at-home orders this past spring. And by all accounts, a growing number of Americans are becoming increasingly comfortable working from home.

According to Gallup, "Even as work and life have become completely blended for many people, more than half of at-home workers say they would prefer to continue working remotely as much as possible once restrictions on businesses and school closures are lifted," although it's important to point out "this percentage has dropped from 62% to 53% as employees have had the daily experience of working from home."

As a result of these macro-workplace trends, it's reasonable to expect PMPs and customers alike to more readily accept - and more rapidly adopt - technology solutions that enable the industry to provide remote auditing and pest detection services. "This is a good opportunity for service providers and food facilities to move forward with their IPM program and consider the value of implementing new Internet of Things (IoT) tools, such as remote monitoring," says Joe Barile, technical service lead at Bayer.





COVID-19:

A Game Changer for Pest Management and Food Safety

Industry professionals share their thoughts on how the pandemic has impacted their ability to service the food-processing industry so essential to feeding our nation.



OVID-19 disrupted business, with food service establishments especially hit hard. Experts discussed the pandemic's impact on food safety and their ability to provide pest management to food and beverage clients:

SANITIZING. COVID-19 is not a foodborne illness. It can, however, make the people who work in food plants, restaurants and groceries very ill. As such, companies launched disinfection services to help keep workers safe and allay their fears, so they feel comfortable coming into work each day.

RK Environmental Services hired 10 new employees in four weeks to support demand for its new disinfection service. "Business for the short term is better than it has ever been as a result of that, but we know that is not going to last forever," said President Hank Hirsch.

SERVICE CHANGES. Pest professionals also don't expect food clients to return to business as normal post-COVID. "They're going to be living under new terms, new guidelines, new operational standards to keep themselves in business. As such, we're going to have to change to accommodate their changes," said Joe Barile, technical service lead, Bayer.

Changes may increase pest pressure in some areas of the business and relieve it in others. "Be open to suggestion but be in control of what you see as the pest management challenges that they have to understand," said Barile.

PROJECT OPPORTUNITY. The temporary closure of facilities for disinfection allowed some projects to occur that would be difficult to coordinate pre-COVID. "We've been able to do work that might require a facility to be closed or have reduced production schedules, like ULV space treatments, fumigation work, more intensive insecticide crack and crevice applications, bird work," said Pat Hottel, technical director, McCloud Services.



ROUTE TIMING. Many food processing clients now require health screenings for entry to plants. "That can take a little bit of modification on our end as far as when to arrive. If it's a shift change, we don't want to be there because they're screening their employees as well and that can cause some delays in getting in for service," said Hottel.

REMOTE MONITORING. The temporary and long-term closures of facilities highlighted the value of remote monitoring for pests like rodents. "I wish that we would have had more electronic remote monitoring out there for some facilities," said Hottel. This would have let McCloud gather data about pest activity inside facilities even if technician access was denied. "If you need another reason why you'd go with electronic monitoring, there's one," she said.

CONSOLIDATION EXPECTED.

The pandemic was an economic blow to food companies of all sizes. Some won't survive; others will get bought out. As such, pest management companies could lose (or gain) clients. This is "an unfortunate side effect" of COVID-19, said Dan

Collins, a veteran PMP with extensive experience servicing food processing plants.

HIGHER SAFETY AWARENESS.

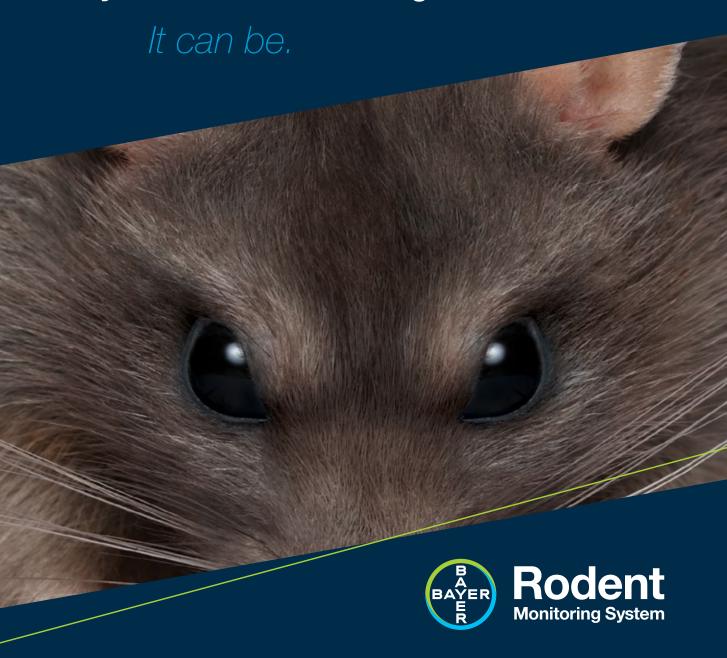
Pest management professionals are more aware of proper safety procedures than ever before, from washing their hands to how they structure their movements through a food operation, said Chris Del Rossi, founder of Food and Drug and the Bug pest services. Safe practices are especially important, for example, after cleaning dirty bait stations or exposure to peanut dust.

"When you're reminded of good manufacturing practices, the current GMPs, the PMP may say, 'Wow. Now I know why I have to sign these papers and understand how they want me to carry myself and why," he said.

SAFETY GAPS POSSIBLE. If workers in food plants and food service become ill, gaps in food safety may appear. Large food companies likely will create departments to address the threat to employee health from COVID-19, said Steven Sklare, president of the Food Safety Academy. "With the devastating impact of COVID-19 it is now incumbent upon us to be better prepared for the next disaster," he said.

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