Why Integrated Pest Management? Understanding, Designing and Resolving Implementation Challenges

Hello and welcome to the presentation, Why Integrated Pest Management? Understanding, Designing and Resolving Implementation Challenges. To ask questions about this presentation, join the presenter for a chat hour in the networking lounge.

I would now like to introduce our presenter, Zia Siddiqi, Director of Quality Systems at Orkin and Vector Control Technical Advisor for the National Environmental Health Association.

Hello, folks. It's my pleasure to be making this presentation, Why Integrated Pest Management and Understanding, Designing and Resolving Implementation Challenges. I think this is very critical. And just to give you my background, I have a Ph.D. in Entomology from North Carolina State University and I have been in the pest management business for almost now 37 years, most of the time working with Orkin Commercial Services, both here in U.S. and in Canada. And in between I had overseas assignments as well.

So to talk about integrated pest management, I've designed and implemented integrated pest management programs from homes to businesses to food service establishments to word processing plants to air parks and almost anything in between. So it certainly gives me pleasure to be discussing the significance of integrated pest management and how we can understand and design and dissolve the implementation challenges.

So let's move forward here, and you see what I want to get at end of the session here that you understand some definition and benefits of the IPM program, Integrated Pest Management program. We will look at the components of the integrated pest management program, how we design and implement the program. And I think that one of the very significant portions of implementing a program is communication and partnership. You'll hear from me that this is a joint venture. A pest management service provider cannot do this alone by himself or herself. He needs a partnership. And also kind of briefly touch the current regulatory and other requirements especially for the Food Safety Modernization Act, the risk-based hazard prevention control program, and certainly the LEED program. Some of these are basically, as far as the pest part is concerned, basically based on the integrated pest management principles.

And certainly last but not the least is brand protection. We want to make sure that neither our customers or the pest management provided on the 6:00 news, (inaudible) something, you know, went wrong, we don't want to do that, so brand protection.

But these are some of the six key (inaudible) that I hope that we take home with us at end of the presentation.

What is the outline? I'll review the integrated pest management program going into a little more detail how, what, when and those kind of things. And then we get into the practicality of it. How is it really implemented at the grass roots level? I will share with you case histories with food retail environment, restaurants, both the quick service restaurant and also the full service restaurant, food processing and some of the healthcare facilities. And what is the bottom line, you know, at end of the day what do we want? And certainly I know this is a web-based program, and later on will be available on the Chat line as you heard in the beginning of the presentation.

And (inaudible), you know, times have changed, you know. I thought I'd share some of this from our company, Orkin, that I work. You see the horse carriage on the left of the screen, horses. A technician now driving a motorized vehicle and collecting the data on the, you know, personal digital assistants, hand-held systems and things like that. So urgency is very much in need. What happened now, not what happened yesterday, and you see the report a week later and month later. So certainly the times have changed in terms of the need and requirement for information.

Let's look at what is integrated pest management. When you hear that a few times, you know, it's not that I'm repeating myself, but I just want to make sure that you understand the system. It's a system, you

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know, IPM is a system. Not just taking one tool out of the toolbox and doing that. It's a system of controlling pests by combining cultural, biological, mechanical and physical methods. And the important point here is minimize health and environmental risk. I don't want to come and (inaudible) down the place so it glows in the dark and nothing will survive there. No, those days are gone. We need to make sure we look at the health and we look at the environmental risk as well.

So in practice IPM is based on identification of the pest, what are we dealing with, monitoring the activity, and then applying a control technique especially when a threshold is reached. I don't want to do a repeat treatment unless I know that we really require it.

So, again, what is IPM? IPM is a precise and comprehensive approach that enables us to break the life cycle of the pest. You need to understand if you're dealing with cockroaches, if you're dealing with rats and mice and flies, you know, where can I break the life cycle? There has to be a weak point in the life cycle. I need to hit that you know.

We need to monitor and prevent new pests from entering the facility. As we know, the insect pests are there. We want to keep them out of the building. I need to monitor how they got in and then how can I stop (inaudible).

As we talk about the modernization and advancement in science and data collection, I think Trend Report is becoming very important these days. Everybody is looking for show me the data, you know. What's happening? So Trend Report is very critical.

Then we need to look at the least toxic approach. If I have to apply a chemical product, I want to start with least toxic and then kind of move up, you know. I want to deliver a proactive preventive program that addresses the root cause, you know. Why did the pest come in here? Was the door left over? Did they come on incoming shipment? Or the truck which brought the product in was infested? So things like that we need to look at, you know.

And we need to leverage the combined expertise of the facility and the pest management service provider. The pest management provider doesn't operate the restaurant or the kitchen, the people who are there know their service partner again. And we want to make sure that this comprehensive and cost-effective approach.

So here are two big circles, and I try to compare the traditional pest control versus IPM. What you see in the circles on the left of the screen is a big circle, red, control. Little bit of prevention, little bit of monitoring. That's the reactive part – or reactive state of the pest control program. That's what was there. Now we have moved on to what we call proactive. The circle size is about the same, but look at how prevention has grown bigger. I need to prevent it, and how can I reduce the chemical load of pesticide load in the environment, you know. Building maintenance, explosion, cleaning, sanitizing, things like that. Yes, control is there, but look at the size of the circle. It has shrunken to the smallest circle now.

And then, of course, monitoring activity still has to be done as to what I'm monitoring and what I'm picking up here.

So IPM, as I mentioned earlier, is an ongoing cycle. It doesn't stop because tomorrow is weekend, or long weekend, holiday, something like that. No. It's an ongoing cycle. It's a holistic approach that we need to look at the total big picture. It reduces the use of chemicals? Yes, it has, you know. A lot of people define or think when we talk about IPM, oh, it's a non-chemical approach. I beg to differ. Yes, it needs chemicals, but only when required. Not because it's Monday morning, I need to go an apply.

And then last point is very important. It's a partnership between the pest management provider and the pest facility manager.

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The different ways you can define and outline the steps in the IPM cycle. I call it AIM approach. Assess the situation. Implement the technique. And then you Monitor to see what's happening. The pest management program has to be a dynamic, not a static, program, and the dynamic program works with the pest infestation, what's coming in, the sanitation condition, and also the physical condition.

So number one, inspection is the key. I need to look, you know, and I just don't look at, you know, standing up with a flashlight. I need to get on top of things, behind, underneath. I need to look at entry points and the conducive conditions. And also based on the facility, what pests could get into the building. I think that's very important that we need to look at what could come into the building.

Then, like any living organisms, pests have certain needs also. They need food. They need water. They need shelter. And certainly they need control of the thermometer, or the temperature should be very, you know, convenient to them. They don't like high heat, or they don't like to go cooler, you know. So these are the necessities for the pests to survive. And we can use this to rig the life cycle. As I mentioned earlier, one of the benefits of IPM is identifying the weak links and, you know, (inaudible) and I stopped the pest infestation.

You know, look at the building. Invitations for the pests are everyone. Here are some slides here, some photographs. You can see, you know, the trash compactor, the open garbage can, you know. (inaudible) penetration point. Moisture. Things like that. These are all invitations for pests to come in.

When we talk about implementing solutions, which is partnership again, we need to work with the facility managers whether it is in the restaurant environment or in the food processing environment. And I think this is the key thing. We need to be working together rather than pointing fingers at each other.

So let's kind of take a quick look at what are the clean-up things, especially inside, you know. And this is more like a food service place. Don't leave dirty dishes out. Clean up all the spills and crumbs. Clear the clutter. I know during the rush hour, lunch hour, things like that, there will be, but once that is over, let's clean the place up you know. Take out trash regularly. Line and lid trash cans. Vacuum and mop frequently. And it's not only at the eye level, but behind the equipment, underneath the equipment. Nowadays most of the equipment is on wheels so you can move it and do a proper cleaning.

What can we do outside? Hose down the trash chutes and dumpsters. This is a very common challenge I see. Summer is approaching now and it will be fly season. What happens to the dumpster? They come and empty the dumpster or they really clean it up and then bring the dumpster back so there is no residue of any of the fly infestation.

Odor control system you know. We need to do that because pests can do that.

Regular trash pickup.

And keep outdoor areas clean.

When it comes to facility management, I always say, think like a pest. If I am a pest and I want to enter the building, I don't need somebody to open the door for me. I can go through what I call the gap analysis. Look at the size of the insect and size of the opening. What I'm trying to show in this picture here on the right side of the screen is a pencil is stuck in the little hole between the two bricks. Well, sometimes these are (inaudible) holes for the water and moisture, but then the pests can get in here. And once they get in there, they don't want to get out because they've got all the comforts of life.

Same thing with the moisture control. Inspect for the source of moisture. Leaky rooves. HVAC systems. What's happening up on the roof? And how many times do you really go up on the roof and check out you know. Solar and ice machines. What's happening behind, underneath the condensation water? Refrigerators? Dishwashers? Pipes. There's condensation moisture there. And broken sprinkler heads are some of the examples of moisture control opportunities.

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Often people miss the landscape part. It looks nice, you know. I like to have flowers and shrubs around my house, and, you know, very good to look at it. But it also gives opportunity for pests to harbor in there and then get onto the building. So nice to have it, but make sure there is a gap between the building and the shrub and they are trimmed so they are not touching the building.

And we talk about monitoring. Certainly one of the things is that we use the traps to monitor. There are different traps. You see here a thermal trap on the top left hand, which is more for the (inaudible) pest insects. And the one on the bottom is typical insect light trap. It not only attracts the flies and other night-flying insects, but other insects can also go in.

The trick in both of these two traps is that it's not that, oh, I caught some insects, let's clean this up and put a new (inaudible). I need to find out what did I trap and what can I do about it? Where does that insect live? How did it get into the building? I think that's very important to get from these traps.

So when it comes to treatment now, and what I tried to show here is let you know start at low volatility, especially inside the building. Again, I want to reduce the chemical pesticide load in the environment. So let's look at non-volatile baits, you know. And you can use that both in here and exterior. And if you back bait the stations, make sure it's secure and applied properly. I always say follow the label directions.

And if really you need any toxic materials, you know, start with the least toxic and apply with care. And you need to inform and notify the staff, you know, what are you using, the location, the date and time, how did you apply, earliest recommendation time to resume activity. We basically (inaudible) reenter. And, you know, a lot of this information is applied in the log book and also the pesticide usage log, the service ticket, or work ticket as they call it often. So, but these are some of the key information that they need to capture when they are applying any pesticide.

I always say that if it's not written, it probably did not happen. But we need to make sure that our monitoring and documentation is there, you know. So we need to look at date of service, what pest activity we recorded, and corrective action. In this day when we're looking at food safety and we're looking at Food Safety Modernization Act and third-party auditors coming in, we need to make sure identify the corrective action, who is responsible for it, and when it's done, you know.

Where is the map to show where my baiting stations and traps are (inaudible).

I just mentioned in the previous slide about pesticide application data. One of the target questions why pesticide I need to make sure what did I apply for. And where did I apply? Locations for treatment.

(Inaudible) the slide. It's kind of a pretty slide, but basically four sections. So let's start from the top. I call it Portrait of An IPM Plan. So let's, you know, go in a place and you find out who observed or reported pest. Somebody called in, said they saw this bug there, or pest, and then let's identify what it is and then situation analyze. Very important. Why did it get here? And all too often we don't do that. People think, oh, there is a fly in here, let's spray something. No, let's find out why did the fly come in here. Is the fly living inside or came from outside? What is the conducive condition? So we need to identify that.

And then you see the big dark green box in the middle of the slide, the third box, Non-Chemical Control Options. And there are about nine options I've written here. Exclusions. Sanitation. Moisture Control. Supply Inspection, right in the middle you see. Where is the supply coming from? Who is checking it out? Trapping. Any structure modification. Can you see any cracks and crevices, holes? And then the physical removal. Let's vacuum it maybe rather than applying insecticide. What about landscaping? And also risk management.

And then if we still can't get the achieved result, then let's go and do the chemical control option, but start with the least toxic formulation.

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So an IPM program has to be evaluated. How do I know that it's really working? So we need to review and assess the strategies and the results, you know. We need to look at (inaudible) improvement. Is it structural? Is it sanitation? And some of the things, you know, we need to look for is unauthorized pesticide use and storage where people – I've see, you know, I've gone in and inspected places and opened the cupboard, and I can see a can of Raid or something they bought off the shelf, you know. Well, if you hired somebody, you know, you don't need to do that. Sometime it may be that you're applying this and there is an insecticide bait attractant and you spray something on it which is kind of nullifying the effect of the bait.

What are the uncontrolled pest problems?

And we don't want to do the routine calendar-based application.

And haphazard pesticide selection. We need to, as I talked about earlier, we need to start with the least toxic and then move forward, so we need to make sure the pesticide selection is done properly.

And we need to work together, and, you know, in a single location is fine. You get to know the people there. But if you're looking at a multiple location and a bigger location, then make sure everybody comes in the room and they talk about it. Bring the people who are really responsible for it, you know. And educate them, inform them, so they become, you know, your team when you're there. The pest control service provider is not at a place 7/24. But the people who work at the facility are, and they can be, really, our eyes and ears, so when we're not there, (inaudible), oh, yeah, I found a pest here, and this is what happened, things like that. It really helps.

And here is an example of how we communicate this kind of information to the staff. Certainly I've used our own company's example. We send these kind of seasonal communication to our customer. And a lot of this content can be downloaded from our website, orkincommercial.com. This information, really, you know, the format may be (inaudible), but what is in there is not. So you can go to orkincommercial.com and download some of that information to make your newsletter, you can make a tip sheet, make a flyer or white papers or even training video. So there's a lot of resources available on the web.

And, again, as I mentioned earlier, ask the staff to report pests. And they're there, and they can really help identify where the issues are.

So what are the benefits? We talked about some of the steps and the components of the IPM program, but what are the benefits? Seventy-six percent of the adults in a survey done by Harris Interactive Poll said that they prefer to eliminate pest problem in their home with less toxic product. So they need to be partnering with us, and that's how IPM becomes a key component and a key method of controlling pests. It's lower the cost, fewer pests, and certainly less chemical which is good for everybody. People living here and for the environment.

Again, one of the key titles of this presentation is Challenges, you know. So let's look at some of those (inaudible). People need to understand IPM concept. Sometimes, you know, when I talk about my experience, people think, oh, you're going to take care of it, you're never going to apply any chemical, and I'm not going to do anything. Well, that doesn't happen. They need to partner with us. Understanding the IPM concept is very significant. It's not just can you deliver IPM program? Yes, I can, but here is your responsibility and here is my responsibility.

That's why the next point is Commitment from buyer or food safety personnel. Oftentime I put buyer here because when you deal with not a single location but you deal with multiple locations, there is purchasing involved, and we need to understand that people who are really buying the pest control program, who is buying? Is it the food safety people or is it buyer and they are going to Purchasing 101 and bottom line they're looking for per unit cost and they're looking comparing the cost. But sometimes you need to understand that you compare apples to apples. So we need to make sure that that's the case.

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And partnership is very important. We need to have the partnership with the pest vendor and the facility. What is the organization's structure? Corporation? Whether it's a single or multiple location, or is it a franchisee operator? And are we dealing with a local or a national program. These are some of the challenges.

This is, again, a kind of busy slide but tells you some of the challenges and how we have to bring them together. So this is what happens with IPM. So you look at three big circles. And you can start from anywhere. I like to start from the left top (inaudible). We talk about education and training. This is very important. The people who are involved in the IPM, they all understand what IPM program is, so management, contractor, tenants, other employees and custodians all need to do that.

And then come to the right side of the screen, we talk about eliminate and reduce. Eliminate the food source, harborage, pest access and water. These are the four critical things that pests need. So how can I reduce it? Cleaning it up. Sealing cracks and crevices. Things like that.

And then at the bottom look at control measures, and on the top I put down non-chemical, and then prevention, and then chemical. So that's what we have been talking about.

Also I've got this diagram for communication, and again, we look at the big boxes here. We've got the pest management professional on the right bottom. We got the facility employees on the left-hand side. And then up on the top you see environmental services. And then on the top right, facility maintenance. And arrows going in all directions. So basically all these, component of the management, if you want to call it, whether it is a facility employee, environmental services, or facility management, these people need to come and work together.

So looking at some of the examples I'm going to get into as to what are the organizational challenges, IPM Plans and Relationships That Work. I put down PMP.

So let's look at pest management company. We have sales organization. We have services specialists or technicians, service manager, branch manager, region, division, president. And then we have what we call Applied Services. (Inaudible) and (inaudible). So this is sort of the organizational structure. But the services specialist or the (inaudible), we need to make sure all these positions in a service organization are synching together and they are singing from the same sheet of music, so making sure the customer gets the right kind of program.

Let's look on the right side of the screen. What happens on the customer side? You want to make sure the buyer and purchasing understand, you know. The site manager understands the program, the challenges, the shift changes. And then the area manager, the person who is managing more of his location, their region VPs, QA and president.

So we can see in the next two slides how we try to line up these positions with each other so there's a good organization makeup and everybody is, you know, on the same page.

So let's look at some food retail stores. I'm going to talk about multiple locations, how we handle it. We talked about QSR, Quick Service Restaurant, and what happens to the company and what happens to the franchise restaurant, you know. And then also look at the big (inaudible).

When we talk about a food retail store, this is a pretty good example. They gave us this scope, you know, which is based on HACCP, Hazard Analysis Critical Control Program. It is already defined in the scope their roles and responsibilities, to they say, Orkin, this is our scope of service, you deliver it. So we take it and then we basically try to implement it. And what we have done here, because of the size of the business, we have dedicated QA managers who are basically looking at this customer. We have service specialists who are dedicated. And then from the customer side, they have their specialists who are dedicated to this program as well. So our QA manager is talking to their food safety manager. And then they help define the escalation procedure, whether it's around the pest sighting or around sanitation,

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housekeeping, building maintenance. Every day when our people go out to service and collect the data on their electronic system and they report it electronically in the morning, so every food safety manager gets that report, and then they act upon it, that becomes sort of their action plan that, okay, I need to do these things, I need to take care of these issues. And Trend Analysis, you see at the bottom, is very critical because we want to make sure that we look at the plan, and are we winning, you know, identifying what's happening. We have several years of data. A lot of time we can predict what's happening at this location, you know, whether it be fly activity or rodent activity or a stored product pest. So we've got enough data to be very proactive and get ready for the program.

So, again, here is some more detail. In this particular situation they are getting two services a month, and that is what you call ESR, Emergency Service Request, when a call comes in about a pest situation, we respond within two hours and resolve in 24 hours.

E-Alerts. We talk about electronic data system. So e-alerts go on for pest issues, for sanitation issues, structure issues, any repeat issues. But this way everybody is in the loop and you're working together an action plan with responsibility and you want to make sure the loop is closed.

Here is a graphic explanation of what I just talked about. You see the white boxes on the left side of the screen and green on the right side of the screen. So here we talk about partnership. The food retail store on the right, Orkin is on the left, and you see how the Orkin operations and the plan services and we talk about operation. You see the red box at the bottom. There's so many divisions, departments and customer care branches, regions and divisions. And then we work together with the corporate QA team, with the store management, and the food retail purchasing. So, you know, we were talking about IPM. And when we talk about challenges and we talk about implementation, look at the complexity of the groups of people that we have to deal with in ensuring that the program is implemented. Everybody has to play equal roles in this program. And that's the biggest challenge, and (inaudible) everybody on the same place, so we need commitment from each of the organizations right from the top.

So let's kind of move on to a food service restaurant, a QSR. Scope, again, provided to us. You know, a lot of these larger organizations, because they have their own in-house consultants or, you know, sometimes they consult us, you know. I've sat on a lot of their organization meetings and things and say what will work better for them and then that becomes the scope of service, and then they bring (inaudible) to bid on it you know.

In this particular case, again we have Orkin-designated QA managers. And then they have their food safety managers. We service their company locations, so corporate locations. And then they have the franchise locations also, independent.

When we talk about implementation of the program, here we've got franchisees, and sometimes, you know, that becomes a challenge that they make their own decision. In one particular case, of course I cannot take names here, but they have to amend their franchisee agreement so the pest data, the sanitation data, the building maintenance data is shared by the corporation, their corporation, so their people, their licensing people in their home office knows what a franchisee location is facing or is doing. And certainly periodic audits is very important.

So, again, we have escalations here. So we look at, you know, it's just not only the pests, you know. We done with IPM here. It's not that every time we talk about escalation it's pest, pest, pest. Yes, (inaudible), but what is contributing to it? What are the conducive conditions we need to look at, and then (inaudible).

We have frequent consultations, and we look at continual improvement, and so sometimes, you know, we have annual meeting, sometimes we have quarterly meetings. The more meetings we have, is better to resolve rather than wait at the end to find out now I've got a bigger problem.

So those are some of the benefits of implementation program.

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Now here – I'm still on the same customer base here. We have monthly updates. You see here we have conference call. We have quarterly business review, and some of the things, you know, we target in this review, the number of locations and number of services, (inaudible), establishing a plan. Are we looking at pests, sanitation, structure and repeat issues? And trending by month, by quarter, by year. And then we compare it to the previous quarter, the previous year, to see if we are winning the war, you know. Are we better now than we were last quarter or last year? And certainly, you know, everybody pays attention to that, and, you know, we are reducing the pest infestation, improving the building condition and improving on the sanitation and cleaning operation. So once you look at it and compare the data, you really feel confident the program is working.

Again, this is the same kind of structure I just showed you earlier for another customer. So on the left side of the screen you see the Orkin side of the business, and on the right side you see our customer's organization. Again, you know, there's a lot of information here, but (inaudible) is when you're dealing with an IPM program, you need to make sure that all these people are together and we are in a real partnership, not just one-on-one, but here we've got corporate QA team, the corporate purchasing, the franchisee purchasing.

And then the restaurant management, the person who takes care of the business at the grass-root level, and then their management or operations. So it's very important, again, that everybody comes together as a party.

Now some of the details, again, I mean, it's pretty consistent. The scope is provided by them, and they have dedicated QA manager. We talked about daily e-alerts. Before we had the hand-held system and the electronic data system and the reporting, let me go back about 15 years. We used to collect paper reports, paper (inaudible), and compile it together, and then somebody entered the data, so by the time the data is really analyzed, it's like five, six weeks. Well, by this time, if you look at the cockroach biology, and the fly biology, and mouse biology, they have multiplied. So it was too late to get that kind of data. Now, you know, with the electronic data system, I know what happened yesterday, and sometimes it's instant and I can know exactly, well, you know, right now I've got 11:00 in the Eastern time zone, so what happened this morning. Somebody serviced a place at 6:00, so I know that right now. But that's a benefit of the electronic data system.

Again, what works here? The escalating the problem, you know, really open communication. I think that's the key. I mean, do we drop the ball? Yes. Both sides can drop the ball, but then let's look at it how can we improve? Don't make that mistake twice, you know.

And sharing the data, good, bad or ugly. I mean, it's our data with our customers, and, you know, those who partnered with us. It's our data. Let's analyze it and see how can it be better. Partnership. Periodic review, quarterly or earlier. And, again, look for continual improvement.

Now, again, here you see the same kind of setup. We've got the restaurant's picture on the right side and Orkin on the left side of the screen. And, again, each of those people in those boxes, they need to be working together.

So communication. How do we, as a pest management service provider, communicate to our services specialists, to our technicians. In case, our company being a national company, we do service calls to coasts, so we got like 500 locations. How do I get to each and every technician? So we have web broadcasts like you are looking at this presentation. We have two-way audio and one-way video, and this is live and interactive, so in Atlanta we have a studio whereby we can share this information. We often bring our customers here. So they hear from me all the time. But when I bring a customer, and the customer speaks to our folks out in the field, it really carries the weight and, you know, delivers the message right there.

And similarly, when we do this kind of broadcast, we invite our customers to come in and join like you are watching this web presentation, our customers can watch our own internal Orkin presentation, this way

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they know what are the issues at their location. And it's a typical communication tool. Everybody who uses it this way I can show you that I'm communicating consistently across the board.

Some of the key points here to look at. That it's a structured communication. We touch on the key points, you know, meaningful exchange of ideas. We show the interest in the end results or we know what we want to achieve, a pest-free location. We don't want any pests. At the same time we don't want any, you know, excessive use of pesticides, you know.

And the relationship has a value. We just cannot (inaudible) over night, you have to work on it and make sure that both parties are satisfied with what's happening.

And roles and responsibilities, I think, is very critical.

Among the challenges from the pest management point of view. Often lack confidence of dealing with the right people. So do I have the right person when I'm talking to them? Is that person going to make my point across and is he going to help us in the problem? So we need to look at that.

And have difficulty doing a courtesy with prime contact. Sometimes, you know, the person may be busy or something, so, you know, communication sometimes does have challenges, you know.

And the third bullet here is generally hesitant to escalate due to backlash at the local level. And this is, you know, hey, if I report this thing, then my people are going to know about it, and they say, oh, no, don't report it, I'll take care of it. And, you know, we'll clean this up. But, you know, nobody is winning here. You never know what it's going to end up, so, you know, that's a challenge. So we need to make sure that everybody understands then, do their role here.

From the customer point of view, you know, you go to a restaurant, they say I've got a business to run. Don't tell me how to clean up, I know how to do that. But that's not the case. We need to tell them why it's important from the pest point of view.

And often the prime contact is not on the site. You know, the person who can make things happen or will listen and implement. He or she may be away.

Local staff are not fully engaged. Oh, that's not my job. I don't do that, or I don't clean this, you know. So we need to make sure we do that.

And region and district contact often are out of reach, you know, and then purchasing when there is an issue. So what happens in the customer's eyes, if there is a problem, they go right to the purchasing – I don't want (inaudible), not reaching anybody. But not looking at what is the cause of this issue. So customers who understand, they will help us, but, you know, sometimes people may not.

So I'm sort of coming to the end here, looking at, you know, IPM – Never Ending Cycle. As I mentioned earlier, it's a never-ending cycle. Again, in the years I've been in the business, I've been trying to explain to the customers a little bit, hey, there is no long weekend for the pest, you know, so it's an ongoing cycle. You've got to inspect. Got to prevent. Got to monitor. Sanitation. And the key point here is joint venture within the pest management provider and the customer or the restaurant operator in this particular case.

A little bit on the current regulatory requirements, which is in my opinion is good now it's being imposed, you know. They are promoting IPM. The Food Service Modernization Act, as you all, is based on proactive approach and now we're talking about hazard analysis risk—based prevention program.

And I've given a few presentations and written articles comparing IPM with FSMA proactive program, and if you line up what we've been just talking about, FSMA proactive program is almost identical to what an IPM program is. Documentation, evaluation, and I know being proactive, things like that.

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When we get into the LEED program and also the USDA National Organic Program, of course LEED has very strict regulation on what pesticides can be used. Similarly USDA has that regulation. But the key here is that the LEED program and the USDA's National Organic Program, they start at IPM. Okay. So if I look at, you know, LEED or USDA, although LEED is more for the building and USDA Organic Program is for food processing facilities, but they look at IPM first. Okay. And then they go into the pesticide use. So, again, it makes me feel good that there are these programs which are promoting integrated pest management principles.

The bottom line is here. We need to make sure that people understand IPM. And if you don't understand, then you may, you know, the person receiving IPM may force you to deliver something which is not part of IPM. So understanding IPM is very difficult, whether it's the food service (inaudible) or the food processing (inaudible).

So the bottom line for any pest management provider, you have your organizational setup. On the right side you are dealing with a customer where there is one location, or multi locations, so you need to make sure your level of communication is going on at different levels. I tried to put down Level One, Two, Three and Four. Level One is right where rubber meets the road, you know. Our technician is dealing with the on-site management. Then, of course, you can go up the chain and you can see higher up in the pest management service provider organization and also on the restaurant side of the business.

So coming to the end here. Appreciate your taking time to listen to this presentation. So I hope we talked about the benefits of IPM. We looked at creating plans and relationships. IPM is easy to define, easy to say, difficult to implement, and creating plans and relationship is very important to make it a win-win program. Communication partnership at various levels is very important.

Somebody needs to review this as to what's happening in the program.

As I mentioned earlier, IPM is a dynamic program and not a static program. Things will change. What I'm doing today I may not do it next week, next month based on what happened, what I found and how things are moving. There's always opportunity for continual improvement, and the bottom line is, of course, the brand protection for both the pest management service provider and also the customer.

So here is my contact information. You can reach me out at 770-220-6030. My email is <a href="mailto:ZSiddiqi@rollins.com">ZSiddiqi@rollins.com</a>. And I'm sure, you know, you heard me before in various (inaudible) presentations. I've done a lot of the rapid learning labs in the past (inaudible) conferences, and I look forward to seeing you all in San Antonio. Thank you very much.

Thank you, Zia. And thank you, everyone, for attending today's presentation, Why Integrated Pest Management? Understanding, Designing and Resolving Implementation Challenges. On behalf of the National Environmental Health Association and our presenter, thank you for joining us today.