

Pest of the Month: My Little Brother

IPM, what does it mean? That's how I begin my talks to the 'Future Farmers of America' (FFA) high school students that attend Agriculture Education Field Days offered at various University Extension Farms and Centers located throughout Missouri. Agriculture Education Field Days are an important part of University of Missouri's Extension outreach as well as one of the most important activities provided to young citizens. Ag Ed field days provide learning opportunities about traditional and non-traditional agriculture as well as allowing students to get a glimpse of a wide variety of potential career opportunities that agriculture can provide.

So when I ask "IPM what does it mean?" I always get a wide array of interesting answers: "International Potato Machine", "Irritating People Magnet", "Insect Plant Matter" are just to name a few. Eventually they get the right answer, sometimes with my help of emphasizing the title on my name tag "Integrated Pest Management." After that, I ask them again for the meaning. After a period of awkward hesitation, I say "OK let's break it down; what does 'Integrated' mean?" With a bit of prodding and some telling hand signals I finally get a "bringing things together?" "Very good" I say. "Now, tell me, what is a pest?" This one is easy. "It's a bug!" "It's something that bugs you!" "It's my little brother!" Invariably, these are the comments I get at every event, without fail. I then go on to tell them they are right, but in the context of IPM, a pest is an insect, weed, disease, or an animal. I then finish off with "what is management?," and I eventually get "to manage something," "a plan," or "taking care of something." "Yes", I tell them, "you've got it; IPM is a process, a strategy; IPM is taking a variety (integrated; more than one) of management strategies and tactics to control your pest problems." I have reached their attention and I'm ready to take them on to the next level.

After engaging them in an introductory definition of IPM, I praise the kids for their participation and then tell them, "Now I've got something for you. I've got the answers to the quiz you're going to get when you get back to class." I turn my gaze to their Ag. Vocation instructor and ask "they're going to get a quiz aren't they?" and invariably the instructor says yes and that gets the kids' attention. "Great," I say, "when you get back to class, your teacher is going to ask you to '**name the Five Steps of an Effective Integrated Pest Management Strategy**,' and you're gonna say: "**#1. Identify key pests and the damage they cause.**" I tell them it's not only important to know what pests can potentially eat your crops, but know what kind of damage the pest can cause. You may not always find the culprit, but by knowing the patterns of damage, you can often identify the pest that caused it. "**#2. Monitor pest populations on a regular basis.**" I emphasize that scouting on a regular basis is the take-home message of the day. "You don't go out to your field once, look around and come back in the house and say 'I didn't see anything, I'm going have a great harvest!' You have to be in your fields often because only you can tell what's going on in your own field." Next I say, "**#3. Determine the potential for economic loss or significant reduction of aesthetic value.**" I go on to explain, "if you are growing beans, that's economics because you're relying on your harvest for income. You need to know how many bugs can eat your beans before you start to lose yield and money, but if you have a rose in your yard, then even though you may have to pay a little cash to replace your plant, it's not economics that concerns you, it's whether the rose is looking pretty or not; it's aesthetics!" Then I'm on to "**#4 Choose the proper management tactic or combination of tactics.**" It may not be just one thing you need to do, it might be a couple of different things. Last, but not least I tell them

"**#5 Evaluate the effectiveness of the management plan or tactics you've chosen.**" "You don't hook up your sprayer, go out and spray your beans, go back in the house, plop down on the couch and say 'boy, I took care of that problem, I'll have a bumper crop now!' No, you go back to your field and take a look to see if what you did had any effect. You evaluate your actions and if they didn't work, you figure out what to do next. Remember it's "integrated" and it may take several solutions in order to solve your pest problem!

Once I've finished with IPM definitions, and the Five Steps of an Effective Integrated Pest Management Strategy," I move on to explain the finer points of the insect trapping process by describing the menagerie of pheromone traps I have on display. I explain how the boy bugs go looking for the girls and pass around an example (a show-and-sniff) of a duel-lure used for trapping Japanese beetles. It's made up of a little rubber-stopper that contains the female pheromone of the Japanese Beetle along with a scented wax 'cookie' that attracts both the males and females. The pungent aroma of the cookie always gets a reaction. Then I go on to explain the individual traps; Japanese beetle trap, Universal bucket trap, stink-bug trap, sticky-wing trap, Texas-cone trap, and the modified-milk-jug trap (used for trapping the Western Bean Cutworm). I tell them about the 45+ insect trappers who monitor the 50+ pheromone traps located throughout Missouri's 8 geographical regions. I explain how the trappers monitor their traps 2 or 3 times a week, and entire their trap-counts online into our database and how that information is made available to the public on our IPM Pest Monitoring Network Website (<http://ppp.missouri.edu/pestmonitoring/index.htm>). I talk briefly about some of the pests we monitor for, and tell them about how they can sign up for our Pest Alerts, a service we began last year that informs

Continued on page 85

Pest of the Month: My Little Brother continued from page 84

our subscribers by e-mail if trap counts exceed a critical level.

All this information delivered in 10 to 15 minutes, class after class. However grueling the pace, if I can spark any interest in any of our future

pest managers, then the rewards for me are limitless.

I end my talk by inviting them to sign up for a free online subscription to our two newsletters, Integrated Pest

& Crop Management, and Missouri Environment and Garden.

*Steven Kirk
Extension Associate
KirkS@missouri.edu*