

UK-IPM Annual Meeting of Advisory Committee
March 6, 2013

In attendance: Princeton – Lloyd Murdock, Jim Martin, Ric Bessin, Philip Anderson, Richard Preston, Don Hershman, Win Dunwell, Patty Lucas, Doug Johnson, Kenny Seebold; Lexington - John Obryki, John Sedlecek, Janet Lensing, Rick Durham, Jen White, Paul Vincelli; Via Skype – Amy Fulcher. Christi Forsythe took notes at Princeton.

This is very good timing for this meeting. The RFA for the E-IPM CS grant came out last Thursday. We have a short timeline on the new IPM RFA letter of intent in by 16th or 19th of March and the full grant in by the 19th of April. We only have six week to do this proposal. It involves letters of intent. Ric also found out that the UK Vice President of Research is requiring something from us by the 14th of March. The reason the VP for Research requires something is that there can only be one proposal submitted per institution. We have to have the Extension Directors letter saying that this is the one proposal from UK but the VP for Research would also like to have a hand in this and they are requiring a three-page proposal from us as well so that he can submit to a committee that will determine which proposal to submit from the University. It's fantastic that we have so much interest in this from administration. There are no in-directs on this. The e-IPM grant is out which is the same funding that covered our IPM Working Groups the past three years and there was a 1-year program before that. This is the RFA that is very important to us. It helps supplement funding a lot of our programs here at UK.

Traditionally we've had the five working groups: Wheat Science, Corn/Soybean, Nursery Crops, Consumer Horticulture Master Gardener and Vegetable Crops. Are we required to continue those on? No, but it's great if we can because we have that longitudinal continuity that goes along with those groups. What the e-IPM grant is meant to do is to provide funding for Extension IPM programs. This is different from the research IPM projects. Does this mean you cannot have research, No, you can have applied research but will have to immediately get that information out to our clientele groups. While reading through this RFA grant, there are some things that come up translational research, demonstrations, some wording on increasing push technologies rather than passive technologies for getting information out we are using iPhones and other smartphone devices were pushing information out to people through apps and web applications, social media, alternative management practices, that comes out with some of this. There are a lot of opportunities that is provided with this new RFA.

Representatives of the different working groups then gave a 2 minute synopsis of what is going on, strategies they are using, or anything they wanted to share.

Vegetable Crops Working Group

Tim Coolong was not present but Ric and Kenny Seebold share the workload in the group. They have been quite active. They have instituted a vegetable crop academy for growers. It is a 2-day intensive course that they have had the last two years in two different locations in each of the last two years. Very active in developing some IPM scouting guides.

Now they have four IPM Scouting Guides that have been funded through this program. One for cucurbit crops, one for solanaceous crops, one for sweet corn, and one for natural enemies in different cropping systems. The academy has been a big success in giving various aspects of producing vegetables for those in attendance. This is probably our biggest success. It needs to be refined because we are running into issues with our growers attending an all-day intensive training. Those people who have presentations in the afternoon have a weary crowd that they face so we may be looking at some different models to enhance the deliverability of some of that information. We may be looking at going to three half-day sessions instead of two full-day sessions. There has been a mix of beginning, intermediate and advanced growers in the group so we may have to split it up so that the advanced producers aren't bored and it's almost too challenging for some of those just starting out. Ric said that the Vegetable Crop Working Group is planning on submitting material for the next RFA. Some of the objectives we are talking about are developing a scouting and demonstration program with some of the high-tunnels that have been cost-shared with the NRCS. There are a couple hundred new high-tunnels in the state now and we want growers to be as successful as possible. So we are talking about outlining in our next section of the proposal some things with demonstration and scouting, a high-tunnel production guide, using more push technologies, maybe developing a Facebook page where we can post things that growers can access. We are also looking at educational programs for some of these new invasive insects and some of our endemic pests and diseases that are changing, basically disease resistance and insect resistance. Those are going to be some of the priorities for our group for the next 3-year period. Will that have anything to do with what some of the county agents did on sweeping and doing insect scouting reports this past summer. Yes. One thing we are thinking about doing with one thing that Patty worked with last year was using a program called mytraps.com where growers could actually input trapping data and scouting data real-time in the field using their iPhone and anyone else in the state could access it real-time and see what's going on not only in their field but in any other field that's in the program in the state. It would be nice if we could incorporate some of those technologies to get this information out faster to those that need to have the information.

Wheat Science Working Group

Lloyd Murdock reported that this group is changing. One success story would be implementing sensor based variable rate nitrogen in Kentucky. We have four farmers who are using it now. Every time we have checked it in implementing it we have always saved money/made money for the producer and did a better job of producing a crop and using nitrogen efficiently. The wheat science program continues to gain momentum from the standpoint that we have a record number of people come to the field day every may and a record number of people come to the winter meeting in January in Hopkinsville (standing room only this last year). We keep getting bigger rooms but they are always too small. The main thing he wanted to stress was that that particular program will probably be changing. He was hoping that Chad Lee would be here today, but there is a good chance that the position that Dottie Call has had in coordinating that will not be funded in that same way anymore. We have probably lost that position, we're not 100% sure but if it comes back it will be a position coordinating all the grain crops (corn, wheat & soybeans). So the wheat science part of asking

IPM for money for their program probably won't exist anymore and will probably come from someone like Chad Lee and have some sort of coordinated effort. We are going to be interviewing before too long to get a new grains specialist at Princeton. So it will probably be a combination of those two people working with that and maybe getting someone to coordinate. This probably means that the wheat science working group and the corn/soybean working group will be combined to make a Grain Crops Working Group. The Wheat Science Working Group success stories have always been able to translate into dollars saved per acre and when you start to multiply that by the number of participants and the acres that are involved those become real noticeable dollars and those become success stories that our National IPM Program Leader can use up on Capitol Hill. Those are changes in economic conditions and those are the best things for the environment and are the best things we can show for an IPM program. IPM for Agronomic Crops is the first emphasis area in the RFA. Lloyd and Dottie won't be involved in it anymore so they don't know who takes up the charge. There is a meeting on Thursday that something could happen concerning that. Hopefully that will be a prominent thing on the agenda for that meeting to try and decide who is going to lead this up because that is a critically important part of our e-IPM grant. If they don't submit something, they would be out for 3 years. Ric really needs a paragraph by Monday because he has the VP for Research proposal that he has to submit by next Tuesday. Just one paragraph from each of the working groups for the internal RFA. This may be difficult for the Wheat Group but maybe in the meeting they will be having Thursday they can identify someone to get a paragraph for the RFA. This only an internal thing. The letter of intent that we have to turn into the National Program Leader is a tentative thing. If the personnel changes happens before we submit the completed proposal that's okay. They just want to have a good idea. They are going to evaluate the grants using virtual panels. They are not going to assemble panels anymore. They are on a very short timeline to get these reviewed. They are going to try and identify who the viewers are before the proposals actually come in. So, for Monday a paragraph for the internal RFA is needed from each group. The paragraph should talk about some of the objectives and procedures (5-6 sentences). Also identify a contact person that Ric can call back if he needs more information.

Nursery Crops Working Group

Win Dunwell reported that theirs is related to the nursery crops. We have provided workshops to the industry related to IPM activities. We used to base everything on scouting and with the last one we weren't allowed to have that in the budget. This time we brought in out-of-state speakers, held workshops and expanded a little bit doing what was called lean workshops. We found out the lean workshops efficiency of operation had a lot of IPM in it. Now we are going to incorporate some of those management practices in what is called LEAN, the Toyota method of producing cars translating that into nursery crops in a way that we can also address it in a pest management system like if you have a plant that shows certain symptoms you don't put it in a pot. How to identify those types of things. Also, with the workshops the attendance can be anywhere from 50-100. We did have several programs that we videotaped that we had much larger audiences than that but they weren't necessarily IPM workshops that we instigated as a part of the grant. What we are doing is we are taking IPM

related presentations and activities and putting them on to a video. Then we have a UKREC Horticulture Channel that we post those to. So, if we have a workshop and 50 of our primary nurserymen show up, then we videotape all the presentations and put them on YouTube and it about doubles the returns. If they report to us an average of \$1500 savings to the growers from attendance then we translate that by putting them on-line and then with each video we end up with about an \$180,000 value on YouTube channel. An example, we had a workshop in Trimble County – 28 people were there but we've had 429 views on our YouTube channel of those same presentations. Our previous work with this has indicated that people don't watch long videos but these videos are 50-60 minutes long, Amy Fulcher did a presentation on IPM management of pest and that video has been viewed 157 times on-line. It was just posted about 2½ months ago. We are kind of surprised at that. All total we have over 50,000 views on that YouTube channel and we're really excited about that. Some of it relates to production activities that ultimately do enhance plant health and pest management but most of the bigger ones are related to edible crops and pruning (Patsy Wilson has over 39,000 views on grape pruning). We are trying to extrapolate out also use Facebook, Twitter, Google Plus and LinkedIn to announce that we have posted it. We posted a video of me talking about Chilling Injury about a week ago that is about a 3 or 4 minute discussion of the Chilling Injury that occurred last spring, we already have 20 views of that. We are pretty pleased with that. We are taking the funding that we get for supplies and stuff and utilizing it in support of this program. We will continue in the future for our grant proposal to have in it to continue the workshop videotaping YouTube type program and add to that. Win asked Amy Fulcher with the University of Tennessee (we have a subcontract with them). She was previously the leader of this grant when it was first initiated. The biggest responsibility she has had was with developing a joint website that is a resource so that the listserv which is another one of our activities. This people a place to go back to. Also, they have a manual and a calendar in progress that will hopefully be wrapped up real soon. She is pretty excited because the manual format is an Ibooks format and for the counterpart an IPM document in Ibooks for other crops. They just did a survey on those at the time were \$3,000 per Ibook document in terms of the value to it. She thinks that's real promising and she is looking forward to getting this in the hands of the growers and the agents.

Consumer/Urban IPM Working Group

Rick reported that they are working with a group of agents on "Greener Kentucky Lawns and Landscapes". Their objective was to pattern some educational resources after a Florida Friendly landscaping manual that is on-line. Basically what this does is break down the material into nine basic areas. For example: right plant right place, watering efficiently, managing yard waste yard pests responsibly. What they have done is create a College Wiki site. They have each of these topics on a separate page. They are trying to gather all the resources they can find into these pages. He has spoken to agents who want to do programs in this particular area. The things they are in the process of doing is developing videotapes for YouTube and developing printed material for each of these topics. Eventually they will have a website that will bring all this together in kind of an e-learning format. Their manual will be more of an e-manual for people to get in access. We believe the agents can use this, the municipalities; anyone should be able to use this.

Win will be heading up the Nursery Crops Working Group this year, they would like to have Sarah Vanek, Extension Associate for Nursery Crops, involved, she is an Entomologist and has created a listserv that sends out information related to entomology. When Amy left, I took over as the leader so I will probably continue in that role.

Rick is planning on continuing with the Consumer/Urban Working Group. He has sent out some e-mails to the agents who are working with him on this but they haven't gotten together yet.

John Sedlecek is involved with a new group the Small Farms Working Group that has been newly established. It's an IPM Small Farms Working Group trying to tailor Extension and Outreach Programs primarily to small farms. John went to a meeting in Clemson in July and shared information on what's going on in some of the different schools. Their next meeting is in St. Croix. Ric considers the work of this group very important because Kentucky has the 4th largest number of farms in the U.S. and farmers. We fall into that small farm category very heavily, more so than any other more important agricultural states would. John said that a lot of their clientele as far as distribution of information are not technologically savvy so they are doing things very much in the old school way. The Third Thursday program that they have been doing the last few years is very successful where people come to their research farm where they share information from their research farm.

Ric mentioned some things about the priorities from the 2012 IPM priorities. We don't have time to go through the who list but if after looking through the list that has been provided by Patty, you see some priorities that are not on that list that should be send Ric some information and he will incorporate those. We have a number of stakeholders here and any input they can give us on our priorities would be appreciated. These priorities are what guide us in what direction we should go. By changing priorities, you really change the direction that we are going to move in as a group. There may be some things we are overlooking. There may be some things that need to go to the back; they are no longer "storefront" material. One of the biggest areas for us, as entomologists, is the invasive insects and how they are going to affect our IPM programs. They are going to cause us to spray at times we have not sprayed traditionally with insecticides. They are going to cause us the spray with materials that are not as effective as some of the materials we have had in the past and can be very disruptive. Ric is willing to take input at anytime on these priorities. Amy said there is some system based IPM incorporated into national and international commerce regulations. It's basically the prevention aspect of IPM. Based on their surveys of growers they are meaning to have more prevention education and looking at critical control points. That's something that she and Win have talked about addressing. It's not necessarily reflected on there, but that's what growers are telling us. Ric asked Amy to send him an e-mail with those points because he believes that there are two or three things embedded in there.

As a stakeholder, corn and soybean producers are planting earlier and earlier, it's colder and cooler, wetter ground this year we have come up with a new issue which is slugs. They are

very unpredictable, we don't know if there is anything IPM can do to address some of these issues. That's one issue that became a big issue in Hardin County last year. This movement to earlier and earlier planting is going to cause more of a problem. So that's a new concern that has shown up. Ric said he could see that becoming more of an issue in Kentucky than other places because of our no-till agriculture. Our high residue agriculture is creating a habitat and potentially there might be some tools that we might research with residue management and there are some other materials that are out there like the iron phosphate type materials that might have some success. That's really changing production practices and wireworms come in to that as well. Wireworms are a continuing issue and that needs to continue be addressed. It's still moving out of the epicenter. Once you get wireworms, you keep them for a long time.

Paul Vincelli asked if we had addressed some secondary program emphasis areas including IPM support for pest diagnostic facilities.

With the new RFA deadlines that are coming up, Ric needs a paragraph from everyone of what their objectives and procedures are so he can turn it in to the VP for Research. We have a March 19th letter of intent where I need to know the PI's and Working Groups to be involved. Maybe a sentence description and also would like to have a name of a potential reviewer from each of the working groups for the grant. We are required to send in three potential reviewers that do not have a conflict of interest with our grant proposal. Conflict of interest would be: advisors and students (that you have had contact with in the last three years), they could be colleagues for those in academia; it can be stakeholders that could be potential reviewers on these grants. He needs that before the 19th.

The grant is due around April 16. Ric will need the materials from everyone by the first of April. They have some very definite deadlines for sending through some of these grants and we have to adhere to that. You can get the materials to Patty or Ric by April 1st and we can work with that. We are willing to entertain new working groups. We've had the reports from the current working groups. Nicole Ward is putting together one for a Fruit IPM Working Group. If other people have ideas for working groups and are willing to assemble something, I'm willing to move it forward. It is up to each person in terms of the ideas and the energy you want to expend into this.

In terms of the current RFA that's on the table, they are only going to accept proposals for a three-year period, so you need to be thinking about a three year period, no more, no less. There is no carryover from the current grant, spend it or lose it. This is good because if someone were to get approval to carryover money, they could not use the same objective in the subsequent grant. By carrying the money over you are saying you are using that money to fulfill that objective and you would have to have completely different objectives to get funded again. Otherwise it is considered they are paying for the work twice by the federal government and there is actually a law prohibiting that right now. So as I understand it, Kenny is going to head up the Vegetable Crops Working Group. Tim will no longer be in that position. The emphasis areas – there is a number of emphasis areas Dr. Vincelli was talking about with the new RFA. There are three primary emphasis areas: 1) IPM for Agronomic Crops, they spell out

the types of things they want; 2) IPM for Communities, community and consumer based IPM programs; 3) IPM for Specialty Crops. When we think about our working group for nurseries, vegetables and fruit, those three working groups would fit within one emphasis area which would be the Specialty Crops. There are 6 or 7 secondary emphasis areas. One of those areas is to support the work of our Plant Disease Diagnostic Labs, that is specifically outlined there. The main difference between the secondary areas and the primary areas is the secondary areas each of those are limited to \$50,000. Potentially we could say we are going to do our work in Agronomic Crops and we could ask for the maximum \$300,000 in that area and that would be okay in their guidelines. But, in the secondary areas there is a \$50,000 per year cap on those monies. Other areas in the secondary would be IPM for Conservation, IPM for Forestry and IPM for Animal Systems and things like that. Traditionally we have not had activity in those areas. We are required to have at least two emphasis areas in our proposal. We are limited to six emphasis areas. We might have eight working groups but some of those working groups would be working within the same emphasis areas. So I interpret it is that if we had seven working groups, several of those would be components of the same emphasis area for our overall IPM program. Don Hershman asked "How much money are these different groups getting?" Our current E-IPM grant receives about \$92,000 - \$95,000 per year (we had that for three years). This new RFA is a reduced maximum amount from \$350,000 down to \$300,000. At an IPM meeting which I attended this weekend they indicated that there were only 2 or 3 that came in over \$300,000. So most of the states are well below that. When you look at the 8.2 million dollars and you look at the 53 institutions that they plan on funding that average is probably going to be closer to \$150,000 per state and the median is probably going to be closer to \$120,000 per state. We also heard a lot about the funding of the federal governments sequestration, fiscal cliff, appropriation, budgeting. So what they are going to do is actually submit this and they are going to evaluate proposals and they are going to anticipate funding for this program. They can't wait any longer for Congress to act so they are moving ahead with the RFA's keeping in mind that there are no guarantees but they have a pretty good feeling the RFA's will be funded at the levels requested. No guarantees, it's hard to second guess what goes on at the federal level right now.

Paul asked if he would prepare documentation for the Diagnostic Lab or does he work with someone in the primary coordination area to build that in. How does that fit in terms of the documentation? Ric said the last time we did submit something for diagnostic labs as a secondary area. It was not funded. We did draw some of that money from the primary area. He would like for Paul to prepare something and then we will submit it as a very explicit secondary emphasis area. The Disease Diagnostic Labs are on the forefront of protection and management of plant disease. It's hard to have an IPM program without those labs because they support all aspects of our IPM efforts. Ric would like to do that and hope that we could get that funded explicitly. They do reserve the right, in this RFA, to identify parts of the proposal that they will not fund. They will be scrutinizing budget numbers very carefully. Money is a very high priority item in Washington they will be looking at the appropriateness of expenditures very heavily and will be expecting more accountability on those dollars. He keeps hearing over and over, how are we going to evaluate these programs. They are looking at it because what they really want to do is be able to come up with these silver bullets, these

extension success stories that our national IPM program leader can identify and deliver to staffers on Capitol Hill and say you gave us 8.2 million dollars we are showing you that you have 375 million dollars in economic benefit to your constituents. We need to think about how we evaluate our programs. There are different levels. One level is change in knowledge which is the lowest rung on the ladder; change in behavior a step up; change in condition (actually outcomes); change in economics; change in health; or, change in the environment. That's the Gold Standard for evaluating programs. Sometimes you don't have the opportunity to do that. If you are running workshops you can ask people what they feel the value was what the savings was. But you can explicitly measure changes in knowledge. Changes in behavior usually takes a long time. One thing to think about as you design some of these programs is you might come up with some baseline information. Baseline information has a lot of value. You might really emphasize getting baseline information during this period and hope down the road you can start to collect information to compare against this baseline. Quality baseline information is an excellent evaluation tool. It doesn't really show change, but could measure change in the future. Amy talked about calculating return on investment - \$9.00 economic value for every one grant dollar invested, they looked at maybe a 5 year average when they had scouting in the program it was more like 20:1 return on investment. Ric repeated what Amy was trying to say because the connection was breaking up "Calculating the return on investment, what is the value economically we get for every dollar spent through the grant." That can be another equally valuable way of measuring the impact of programs. She did mention that the more recent numbers were 9:1 and previous to that when we had scouting it was 20:1, unfortunately many of the reviewers view scouting and paying for scouting in our proposals as not a good thing. They ding us for that on our proposals; they say the growers should be paying for the scouting we don't need to be subsidizing the scouting on these crops. As we design some of these new programs there may be ways of putting in scouting under demonstration projects and things like that. As you craft these things if you are saying you are getting money to hire a scout to go out to these farms that's not something that's been viewed very highly by our reviewers. Yes, there is a tremendous value in scouting it's just the reality/history of how they have been critiquing these proposals.

You will be hearing more from Patty and Ric. If you hear about new working groups or new working group leaders that are materializing, let Ric know. He will be happy to incorporate those, but can only act upon things he knows about. For our stakeholders, their role is to let us know we are going in the right direction. You are the sounding board; you are the reality checks for us. Tell us if we are going in the right direction or if we are missing opportunities, if we are wasting our time.

No other thoughts except to adjourn.