

**IPM – Where to Next?**  
**Final Plenary Session, Sixth International IPM Symposium, Portland, OR**  
**Dennis D. Kopp<sup>1</sup>**  
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I would like to spend a few minutes taking an objective look at the programmatic growth and resources for Integrated Pest Management (IPM), from the past, to the present and postulate a bit about the future. The past is the easiest to understand, since many of us here were part of and participated in shaping it. The present was discussed over the last several days, during which we were provided a wonderful window into some of the remarkable IPM work that is in progress. Envisioning the future is a bit trickier, yet certain reasonable postulates can be made from present trends and external influences. In this presentation, I would like to share some thoughts regarding future opportunities and what I see as trends in public funding for IPM.

Starting in the past, we must first remember that IPM is a science-based “Idea” represented by an acronym. It was in its formative days and still is a “Good Idea” and describes a methodology or a way of protecting the interests of man from pests, in an ecologically sound manner. Most of us, at this meeting, have built our graduate student education and careers around this “Good Idea”.

The Idea and underpinning philosophies of IPM began its evolution in the 1950’s and grew in the 1960’s with an increasing recognition that society needed more ecologically sound approaches to managing pests, beyond just using toxicants. The implementation of this “Good Idea” involved integrating several types of monitoring and management technologies to control pests and at the same time protecting or preserving natural populations of beneficial organisms. During the 1970’s, state and Federal legislatures took notice and designated funding support for the development of IPM approaches to managing pests. When public funding was provided for Integrated Pest Management, IPM went from a “Good Idea” to the program we know and promote today.

Specialized interest groups adopted the foundation principles of integrated pest management approaches into such areas as sustainable agriculture, organic agriculture and water quality. Obtaining public funding, these ideas also became programs know as the SARE, IR-4, NPDN, Water Quality and Organic Agriculture. In each of these programs, integrated pest management is a “Foundation Idea” and a part of how they do business. Over the past decade, stakeholder support has resulted in increased Federal, state and institutional funding for agricultural research, education and extension. Millions of new dollars of public funding have provided for IPM pest management research, education and extension activities. Examples of these new Federal resources over the past decade are found in new or expanded programs such as:

- Pest Management Alternatives Program (PMAP)
- Integrated Pest Management Centers
- National Plant Diagnostic Network
- Methyl Bromide Alternatives
- Crops At Risk (CAR)
- Risk Avoidance and Mitigation Program (RAMP)
- Regional IPM Grants Program (RIPM)
- Integrated Organic Program

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<sup>1</sup> Dennis D Kopp, USDA/CSREES, 1200 Independence Ave, Washington, DC, 20250, [dkopp@csrees.usda.gov](mailto:dkopp@csrees.usda.gov)

- Specialty Crops Research Initiative
- Organic Agriculture Research and Extension Initiative

You may also have noticed that the distribution of each of these new funding lines is through competitive processes.

**For The Present:** Let's first look at who is paying for the IPM programs. In your States the largest source of tax derived public dollars for your State IPM efforts are of State origin, County tax support is the second largest and Federal resources are, by far, the smallest of the three. The present economic climate is quite clouded to dismal with major down turns being reported on a daily basis and this will likely have impacts on all lines of public funding. The primary strength of Federal resources is in providing National and Regional direction and leadership.

Over the last two decades, Congress has shown a preference for funding competitive peer reviewed pest management programs at the expense of base or formula funded programs. Also in the 1998 and 2008 Farm Bill, several base funded programs were changed to competitive grants programs. Federal public funding for bio-based pest management has increased substantially and the number of programs built on IPM principles have incrementally and substantially grown through the last decade.

Let's take a look at some of the programmatic and cross-program realities of today:

- Today, state-operated IPM, SARE, IR-4, NPDN, Water Quality and Organic Agriculture programs are separate and work independently of each other within most states. Each does its own programming, has its own funding lines, its own stakeholder groups, and its own supportive following.
- Participants and stakeholders of each of these programs recognize that there is a finite resource base and often view their program in competition with the other programs for their rightful share of resources.
- Within states minimal cross-program planning and engagement has been demonstrated.
- The Regional Center programs of IPM, SARE, IR-4, NPDN and Water Quality have been another "Good Idea" and they have provided strong leadership facilitating National and inter-state cooperation and coordination.
- The *ipm*PIPE has provided a unique opportunity and demonstrated the value of what a cooperative and coordinated multi-state, multi-discipline and multi-program engagement can accomplish.

**Now on to the Future:** The word from all camps during the past election was the word 'CHANGE'. We all know, future change can be influenced and directed by events and actions of the present. One's actions today will shape the future and can positively influence valued interests. Here is what I see as some future trends confronting publicly funded pest management programs and then I would like to suggest certain action items that could have positive impacts on the future of IPM as a concept and specifically on your program.

First, let's consider some recent trends related to Congress, the general public and funding of pest management programs:

- Agricultural research, education and extension are domestic spending, which is the soft-belly of tax cuts in hard times.
- With ever greater strains being placed on Federal, State and Institutional budgets, the funding of service-type activities, such as agricultural research, extension and the *ipm*PIPE

platform, will likely come under ever greater scrutiny. In tough financial times, the recipients of benefits and services from publicly funded programs will be expected, by Congress and the general public, to take on an increasingly larger portion of the cost of service-based programs.

- Stakeholder support of pest management programs is essential and provides the strongest leverage within state and Federal congresses for continuing and growing support for research, education and extension. But these needs and voices are competing with a roar of other petitioning voices during a period of economic down-turn.
- Senators and Representatives from urban Districts and States have a minimal knowledge of what is in any particular Agricultural Appropriations Bill, but have seen the dollars increase each of the past 10 years. The Agricultural Committees in the House and Senate are the designated groups that get into the weeds in regards to funding of all agricultural research, education and extension. Still, pest management related funding composes only a very small portion of the Agricultural Committee's agenda or budget, with a much larger component including such items as Food Stamps, commodity subsidies and direct farm payment programs. The majority of congressional members in both the House and Senate see the Agricultural Budget growing each year and believe Agriculture's needs are being generously provided for.
- Congress, its staff and its constituency have little understanding of the importance of pest management and fertility in commercial agricultural production systems. The majority of voters believe that they and their families would be safer and healthier if all food was grown organically and pesticides were not used in food production.

The following comments are built upon what **you** and **your program successes** have taught me over the past 40 years. It is my belief that acting upon the following opportunities would strengthen support for your programs and IPM in the future. When Moses came down from the mountain he was holding tablets containing Ten Commandments. OK, I am no Moses, I don't work in stone, the number ten and the word 'Commandment' have already been used. Thus, pray tell, let me present **"Eight Suggestions for the IPM Faithful"**:

**First Suggestion - Feed the Hungry** - Today's agricultural scientists and IPM practitioners are as bright, technically skilled, articulate and hard working as colleagues in any science discipline and your mission to feed a hungry world has never been more important. At every opportunity, we need to share with the public the message that we are in the business of producing healthy and safe food. Food production for a hungry world is as important as curing cancer or putting a man on Mars. It is time to spread the true word.

**Second Suggestion - Integration Makes Us Strong** - Realize that Congress can cut any entitlement program to balance future state and Federal budgets with the stroke of a pen. Successful programs rise above petty rivalries and prejudices of the past that have complicated cooperative IPM work between research and extension. Successful state IPM programs of the future will have extension and research staffs jointly developing multi-disciplinary goals, plans and approaches that are seamlessly funded with diverse state and Federal funds. It doesn't matter if you are supported by research or extension dollars, when you are working in someone's backyard, field or barnyard; in the eyes of your clientele, you are *"that person from the Ag College down there"*.

**Third Suggestion - Consider Stakeholder Support as Golden** - Develop a shared Sustainable Agro-Ecosystem stakeholder base, viewing IPM, SARE, Organic Agriculture, IR-4, NPDN and Water Quality as a continuum of programs that have key pest management issues in common.

Your best stakeholders recognize the complexity and inter-dependency of these issues and need to feel fully included as partners from program planning to problem solving. Share with your stakeholder your successes, challenges and opportunities in addressing their needs and generously acknowledge stakeholder contributions in your program accomplishment reporting.

***Forth Suggestion – Follow the Cheese that Hath Moved*** - Congress appears to be more willing to grow funding line for competitive programs, rather than increase base-funding of ongoing programs. Swimming against the current is exhausting. Go after the growing competitive dollars by bringing together the right personnel, programs, and institutional strengths to effectively compete for these new resources. Encourage and work with the best and brightest agricultural scientists, helping them to successfully compete for Federal, state and institutional funding to focus on your stakeholder's key regional and local issues.

***Fifth Suggestion – Note the ipm-PIPE Model is IPM's future*** - *ipm*PIPE webs together the technological advances in communication, information management, pest monitoring, prediction and pest management options into a real-time decision making tool. Examples have been built, implemented and demonstrated, making regional and national documentable impacts. The *ipm*-PIPE is not an add-on to our present IPM work, but is the look of IPM in the future.

***Sixth Suggestion – Know that United We Stand*** – Congress, and a majority of the general public, views organic farming as politically positive and has but a shadowy understanding of the alphabet soup of other pest management programs. Identify ways to leverage strengths of your state IPM programs, IPM Centers, SARE, Organic Agriculture, IR-4, NPDP and the Water Quality program into a shared strategic approach with a shared set of goals. Promote joint planning and programming at the state and regional levels. Identify ways to increase efficiency by jointly supporting staff working on common goals and generously sharing successes and accomplishments between programs.

***Seventh Suggestion – Consider the Fact that All of Us is Smarter than any One of Us*** - With the trend toward competing multiple-use of the land and water resources for agricultural food production, recreation and preservation, there will continue to be a need to understand and ameliorate social, political and psychological ramifications that these change will place on society. Agricultural sciences will need to partner with the social sciences to find new ways and approaches in defining and targeting the highest priority issues and needs of stakeholders. There is hardly a single stakeholder need, relating to agriculture, that does not cross-cut and have inter-dependent components within the social sciences.

***Eighth Suggestion – Know thee that Accountability is Sacred*** – Programmatic accomplishment reporting, which provides measurable documentation of outcomes and impacts, allows stakeholders to tell the story of your success. The best accomplishment reports answer the “So What?” question.

At this point you have had enough suggestions and this is the last talk of the Plenary Session. So, I would like to summarize this presentation and close sharing with you three insightful Wayne Gretzky quotes that, I believe, relate to my message today.

- ❖ A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be.
- ❖ Procrastination is one of the most common and deadliest of diseases and its toll on success and happiness is heavy.
- ❖ You miss 100% of the shots you don't take.