

**Arizona Pest Management Center  
IPM Infrastructure & Leveraged Funds (2005–2008)**

The Arizona Pest Management Center is a multi-disciplinary virtual center of IPM scientists, stakeholders and programs at the University of Arizona. Formed in 2003, the APMC has as its mission, “to create a working environment in which the science and implementation of IPM in Arizona can thrive”. One measure of success in meeting this mission is demonstrated in our capacity in leveraging IPM programs and IPM funding.

**IPM 3(d) Funds**

Extension Smith-Lever IPM 3(d) formula funds have provided about \$100,408 annually. These funds provided partial salary support (30–50%) for a faculty-level IPM Program Manager, who oversees daily activities of the center. These moneys have also supported operations each year (ca. \$10K) for routine travel, supplies and website maintenance. In recent years with input from a 17-member advisory IPM Coordinating Committee, the APMC has supported faculty, including Agents, through IPM mini-grants, awarding ca. \$46,400 annually.

**APMC Foundation Awards**

The IPM Program Manager position is keystone to the function of the APMC. Competitive grants are used to fund half of this position. Activities include responding to federal pesticide information requests, serving as a two-way communication conduit between local Arizona stakeholders and the federal IPM program, identifying local IPM priorities, documenting pest losses in key desert cropping systems and developing tools to assess the impact of our IPM programs. The APMC recently secured UA - Maricopa Agricultural Center support for a database specialist. Our goal is to leverage this with competitive grants to develop analytical capacity related to 20 yrs of Arizona pesticide use information.

<b>APMC Foundation</b>			<b>Term</b>	<b>Award</b>	<b>IDC</b>
Arid Southwest IPM Network	Western IPM Center (UC-Davis)	Ellsworth, Fournier, Palumbo, Baker	2004 - 2009	\$ 125,000	\$ 25,000
Crop Insect Losses Working Group	Western IPM Center (UC-Davis)	Ellsworth, Fournier, Palumbo	2004 - 2009	\$ 60,778	\$ 11,978
Database Specialist	Maricopa Ag Center	n/a - not competitive	1 yr	\$ 75,000	\$ -
				<b>\$ 260,778</b>	<b>\$ 36,978</b>

**Stakeholder Engagement**

Identification of stakeholder priorities and engaging stakeholders in the assessment of our programs are essential activities without which many of our programs would fail to compete extramurally. Stakeholder engagement is a major function of the APMC. Activities have included Pest Management Strategic Plans (PMSPs) and working groups. In addition, we garnered support from state Cooperative Extension to hold a statewide Arizona Pest Management Center Summit in which over 100 local stakeholders documented IPM priorities for agriculture, urban horticulture, community and school IPM and noxious and invasive weeds (<http://cals.arizona.edu/apmc/Summit.html>).

<b>Stakeholder Engagement</b>			<b>Term</b>	<b>Award</b>		<b>IDC</b>	
Desert Cotton Pest Management Strategic Plan (PMSP)	Western IPM Center (UC-Davis)	Ellsworth, Fournier, Palumbo, Baker	1 yr	\$	11,996	\$	2,400
National School IPM PMSP	Western IPM Center (UC-Davis)	Gouge, Fournier, Green	1 yr	\$	10,000	\$	2,000
Desert Turf PMSP	Western IPM Center (UC-Davis)	Fournier, Umeda, Kopec, Ellsworth	1 yr	\$	12,062	\$	2,412
Western School IPM Working Group	Western IPM Center (UC-Davis)	Gouge, Snyder, Fournier et al.	1 yr	\$	30,000	\$	6,000
School IPM Practicum	Western IPM Center (UC-Davis)	Gouge, Snyder, Fournier et al.	1 yr	\$	5,000	\$	1,000
Noxious Weed Strategic Plan	Western IPM Center (UC-Davis)	McReynolds, Fournier	1 yr	\$	5,000	\$	1,000
				<b>\$</b>	<b>74,058</b>	<b>\$</b>	<b>14,812</b>

### APMC-Enabled Projects

The re-organization of UA IPM programs under the APMC has greatly enhanced the competitiveness of our efforts. Projects in this category were all in some way enabled or synergized by the APMC, providing key infrastructure, leverage, and technical expertise in program evaluation, an increasingly important component of many IPM projects. Most notable in this category is the very large, multi-institutional USDA-RAMP grant that we lead.

<b>APMC Enabled Projects</b>			<b>Term</b>	<b>Award</b>		<b>IDC</b>	
Reduced-Risk IPM for Melon Aphid	USDA Pest Management Alternatives	Palumbo, Jones, Teegerstrom	3 yrs	\$	178,700	\$	35,740
Measuring Adoption of IPM	USDA Regional IPM Competitive Grant	Ellsworth, Carriere, Fournier, Palumbo	2 yrs	\$	60,000	\$	-
Areawide Lygus management	USDA Risk Avoidance and Mitigation Program	Ellsworth, Palumbo, Carriere, Fournier, et al.	4 yrs	\$	2,500,000	\$	504,351
Whitefly Resistance Management	NRI	Carriere, Tabashnik, Dennehy, Ellsworth et al	3 yrs	\$	359,000	\$	175,910
Sustainable lettuce insect management using reduced risk insecticides.	USDA Pest Management Alternatives	Palumbo, J., K. Nolte	2 yrs	\$	132,855	\$	26,571
Use of grafted seedlings for methyl bromide transition in U.S. open-field fresh vegetable production	USDA Methyl Bromide Transitions	Kubota et al.	3 yrs	\$	884,330	\$	176,866
School & Childcare IPM on the U.S. - Mexico Border	EPA / BECC Children's Environmental Health	Gouge	1.5 yrs	\$	80,000	\$	-
Market-based instruments for optimal control of <i>B. tabaci</i> in Arizona	USDA Economic Research Service	Richards, Ellsworth, Tronstad, Naranjo	1 yr	\$	172,161	\$	4,693
				<b>\$</b>	<b>4,367,046</b>	<b>\$</b>	<b>919,438</b>

### APMC-Supported Projects

In addition to those efforts directly enabled by APMC involvement, others have received support from the APMC in the form of critical review, revision, or improvement through dialog with the APMC. Again, this support network would not be in place without the infrastructure previously provided through 3(d) IPM funds.

APMC Supported Projects			Term	Award		IDC
Nematodes for Urban Pest Control	USDA Regional IPM Competitive Grant	Stock & Gouge	2 yrs	\$	60,000	\$ 12,000
Cotton Pesticide Data 2004	Western IPM Center (UC-Davis)	Baker	1 yr	\$	5,000	\$ 1,000
Enhancing Agricultural Productivity Through Educational Partnerships	Technology Research Initiative Fund	Brown et al.	1 yr	\$	125,360	\$ -
				<b>\$</b>	<b>190,360</b>	<b>\$ 13,000</b>

### Summary

With key infrastructure support from our federal partner [Smith-Lever 3(d)], we have managed to multiply our efforts many-fold (10x) to develop support systems for our IPM programs in Arizona. This creates value for our institution and for our many stakeholders and clientele who also partner in this success. For ca. a \$400,000 federal investment (over 4 yrs), the APMC has leveraged over \$4.8 million in IPM programmatic support. This excludes UA infrastructural support in the form of salaries for Specialists, Agents, and technical staff involved, in whole or in part, in Extension IPM programming around the state.

IPM Programmatic Effort	Amount	IDC
APMC Foundation Awards	\$ 185,778	\$ 36,978
Stakeholder Engagement	\$ 74,058	\$ 14,812
APMC Enabled Projects	\$ 4,367,046	\$ 919,438
APMC Supported Projects	\$ 190,360	\$ 13,000
<b>Total Competitive</b>	<b>\$ 4,817,242</b>	<b>\$ 984,228</b>
*State Support, IPM Program Mgr.	\$ 11,089	\$ -
Support, Database Specialist	\$ 75,000	\$ -
Other Extension Support	\$ 27,500	\$ -
<b>Total IPM Effort</b>	<b>\$ 4,930,831</b>	

For more information, please visit <http://cals.arizona.edu/apmc>