PARTNERSHIPS EXPAND THE HORIZON FOR THE MARYLAND INTEGRATED PEST MANAGEMENT PROGRAM.

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Abstract

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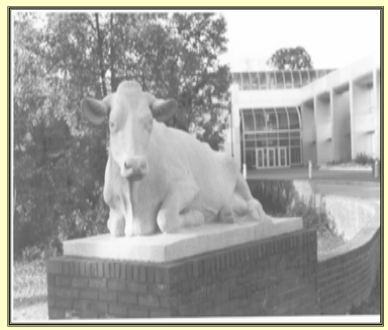
Programmatic affiliations within and between the University of Maryland Statewide Integrated Pest Management (IPM) Program, the Maryland State Network Project and the Maryland Department of Agriculture Plant Protection Section allow for an inclusive approach to information transfer. Additionally, the IPM Program benefits greatly from the support and collaborative efforts of a number of Maryland Cooperative Extension resource laboratories, facilities, and allied programs. The goal of these partnerships, increased stakeholder awareness, supports the expansion of opportunities for Maryland citizens to engage in IPM related activities. Faculty and/or staff in all above units contribute to multiple cross-programming efforts which address both ongoing and emerging pest management issues. Drawing from expertise in research based IPM best management practices, pesticide education and assessment venues and regulatory issues, this networking of resources provides a consistent and reliable flow of timely pest management information for state citizens. These cooperative efforts show results in increased stakeholder participation in advisory groups, program committees, policy decisions, research and outreach projects, conference and workshop attendance and use of web based resources.

The University of Maryland IPM Program

The focus for the Maryland Integrated Pest Management (IPM) Program involves four major program areas which address the pest management issues of economic, environmental and social significance to Maryland Stakeholders: Agricultural IPM, Green Industries IPM, Community IPM and Urban Structural IPM. According to the federal census conducted every 10 years by the U.S. Census Bureau, Maryland's population in 2000 was 5,296,486. From 1990 to 2000, the Maryland population grew 10.8%, a gain of 515,733 persons. Maryland encompasses a total area of 12,192.97 sq. miles (Land 9,843.62 sq. miles + Inland Water 623.35 sq. miles + Chesapeake Bay 1,726.0 sq. miles). With 529.1 persons per square land mile in 1999, it ranked 6th in population density among states (including the District of Columbia). The recently distributed Maryland Department of Agriculture 2004 summary on Agriculture in Maryland, http://www.nass.usda.gov/md., reports 2,050,000 acres of land in farms. 12,100 farms averaged 169 acres with broiler producers representing the largest agricultural sector in Maryland, in terms of cash receipts, followed by greenhouse and nursery, dairy, corn and soybean growers. Gross farm income in 2004 was $2,058,779,000 with net farm income per farm averaging $48,590 The majority of farmland in Maryland is located in the north central part of the State and the upper Eastern Shore.

As can be visualized from the introductory paragraphs on Maryland state statistics for land, population and the agriculture industry, Maryland is a heavily urbanized state. Increase in urbanized area results in a greater agriculture/urban interface with an increased Stakeholder awareness of and inquiry into pest management solutions. At the University level, Maryland Cooperative Extension and Maryland Agricultural Experiment Station provide programs in education, research and outreach to address the dynamics of pest management challenges. The IPM Program draws from the expertise of faculty and staff in both the College of Agriculture and Natural Resource Sciences and the College of Chemical and Life Sciences. A teamwork-based systems approach is accomplished by the networking of State and Regional Specialists, Area Extension Educators and County Extension Educators in Crop Science, Entomology, Horticulture, Plant Pathology, and Weed Science. These University extension and research teams in turn network with the public and private sectors throughout the state. Also, multi-state collaborations are established with other universities.

All Maryland IPM Program areas are responsive to economic, environmental and social interests related to pest management issues expressed as priorities by Maryland Stakeholders. Innovative research provides inroads to less toxic solutions to pest management. Research generated information is transferred on state, regional, national and international levels with multi-agency collaborations in: laboratory and field studies; demonstration projects; diagnostic laboratory support as a stakeholder decision-making tool; "on-the-spot" and web based educational outreach programs emphasizing non-chemical means for plant protection. Non-chemical management tactics include microbial biological control agents, resistant plant materials and sustainable landscape designs, and development and use of models for pest prediction and decision making.



The Maryland State Network Project

The Maryland Information Network for Pesticides and Alternative Strategies (MINPAS) serves as the State Network Project (SNP) designed to gather and transmit information on issues relevant to both current and transitional pest management strategies, including pesticides. MINPAS delivers pesticide regulatory and policy information to Extension educators, growers, crop consultants, and pesticide users in the state; gathers pest management data from researchers, Extension educators, growers, crop consultants, and pesticide users; analyzes these data to estimate the impacts of changes in pesticide regulations on agricultural productivity in Maryland; solicits input from other states in the mid-Atlantic region on shared commodities; and shares this information with other states in the mid-Atlantic region, the Northeastern Integrated Pest Management Center (NEIPMC), the US Department of Agriculture (USDA), and the US Environmental Protection Agency (EPA).

The Extension IPM Coordinator (Ms. Sardanelli) serves as the principal liaison to federal and state agencies and to the land grant institution on IPM. The IPM coordinator continues as an IPM representative to the College of Agriculture Emergency/Agro Security Focus Team and regularly meets with the MCE Assistant Dean of Programs for IPM information transfer advisory sessions. Sessions in 2005 IPM included Coordinator and IPM Specialist participation in MCE In-Service Training Programs and cooperative IPM / NRCS efforts to support IPM implementation in Maryland.

The PEAP Coordinator / MINPAS Project Director (Dr. Brown) serves as the principal liaison to federal and state agencies and to the land grant institution on pesticide issues. The PEAP Coordinator serves on the Agricultural Health Study National Advisory Panel and the (Maryland) Governor's Controlled Hazardous Substances Advisory Council, and is a member of the University of Maryland Homeland Security Panel of Experts.

The MINPAS MDA co-Director (Ms. Holko) serves as the key MINPAS liaison to other state agencies, bringing IPM and pesticide issues to the attention of state regulators directly through presentation to the MDA Pesticide Advisory Committee. MINPAS maintained an email list of appropriate State regulatory personnel, as well as the USDA-APHIS State Plant Health Director, to provide a direct conduit for information exchange from MINPAS and the NEIPMC to the regulatory community.

The Maryland Department of Agriculture Plant Protection Section

The Maryland Department of Agriculture (MDA) Plant Protection Section provides statewide IPM support through various mechanisms and programs, including:

•The Cooperative Agricultural Pest Survey (CAPS) is a joint project between Maryland Department of Agriculture and USDA-APHIS-PPQ. Pests are surveyed on a rotating basis to cover the exotic pests listed in the "Recommended Target Species for Exotic Pest Survey in the Northeast". If any of these species were to become established, it would pose a significant threat to our agricultural production and have a significant impact on Maryland's ability to export agricultural commodities.

•Biological control programs are often impractical to carry out by individual crop producers. Additionally, a sustained approach may be required in order to maximize the chances of establishment and desired impact of a beneficial organism. The Maryland Department of Agriculture conducts programs to facilitate the establishment of biocontrol organisms to benefit Maryland stakeholders.

•The Maryland Invasive Species Council (MISC), a group of scientists, conservationists, land managers, business people and other concerned citizens, is working to raise awareness and recruit help in managing invasive species in Maryland.

•The Noxious Weed Law: A weed control advisory committee in each of the twenty participating counties, representing farming organizations, governmental agencies, local farmers, and other interested parties. Each committee provides advice or input into planning the noxious weed control program in that county under the guidance of a county weed control coordinator. In counties where there is no weed control coordinator, Maryland Department of Agriculture employees handle these duties.

•The Maryland Department of Agriculture conducts programs to ensure that the Maryland nursery industry, valued at over $141,769,000, continues to be a strong part of Maryland's agricultural economy. Inspection and survey activities facilitate the production in Maryland of nursery stock that is healthy and meets interstate certification requirements, and confirm that plants sold or distributed in Maryland are free of invasive pests, as well as other pests of quarantine significance.