

**Interim Report of the  
Pesticide Information and Reporting Workgroup  
January 14, 2014**

The Pesticide Information and Reporting Workgroup was established by the 2013 Maryland General Assembly in HB 775/SB 675. It is composed of representatives from the departments of Environment, Agriculture, Health and Mental Hygiene and Natural Resources, along with representatives of the agricultural industry, environmental advocates, pesticide industry and public and environmental health experts. It was co-chaired by Senator Roger Manno and Delegate Stephen Lafferty and staffed by the Department of Agriculture.

The Workgroup met six times from July 2013 through December 2013. During that time, it received testimony from public health experts, environmental scientists, federal agencies, and representatives for retail merchants and the farming community and the public. The debate and discussion by Workgroup members was extensive and, at times, difficult since there were conflicting points of view and interests as represented by the farming community, pesticides industry, environmental and public health scientists and environmental advocacy groups. However, it is clear that the Workgroup members and those they represent are committed to protecting the health of the public and the environment.

The Workgroup utilized a broad definition of pesticides, i.e., a pesticide is a chemical or biological agent used to prevent, destroy or repel pests. Pests can be insects, mice and other animals, weeds, fungi, or microorganisms such as bacteria and viruses. Pesticides are also used to kill organisms that can cause disease. Most pesticides contain chemicals that can be harmful to people, animals, or the environment. For this reason, the United States Environmental Protection Agency (EPA) regulates pesticides in the United States to protect public health and the environment.

As required by statute, this is an interim report of the Workgroup. Although exhaustive attempts were made to achieve a consensus on the Workgroup charges, in many cases consensus could not be reached. Therefore, there are a limited number of recommendations for concrete action at this juncture. This report first indicates general findings by legislative charge and then makes specific recommendations where possible.

***Finding 1: Identify any pesticide use data gaps***

There are gaps in available information about the use of pesticides in Maryland, despite extensive Federal and State regulatory systems. The EPA risk assessment and registration processes are required by federal law. Both environmental scientists and public health experts indicate that there is an absence of readily available data with which to determine the nature and

extent of pesticides usage and human and environmental exposures and to better target limited funding resources.

While many pesticides currently play a valuable role in agriculture and controlling pests that can affect human health, more complete information about where and when pesticides are used and the extent of pesticides usage is needed. These types of data are needed to better understand environmental and human exposure and health outcomes related to pesticides usage. A pesticide reporting data base, by itself, would not fill all of the data gaps, but would answer some questions. Clearly, pesticides usage is distinctive and different from exposures to pesticides. The specific gaps identified include:

- Current usage of specific pesticides by relevant geographic areas (watershed, zip code, county) and by time of application;
- The distribution and impact of pesticides in the Maryland environment
- The contribution of applied pesticides to human exposure in Maryland; and
- The man health impacts of pesticide exposure

***Finding 2: Determine the need for a data reporting program***

Whether a data reporting program, alone, would address the data needs described above could not be agreed upon. State law requires all certified and licensed applicators to maintain detailed information on their use and application of pesticides in Maryland. However, there is no routine reporting of this information to the public or to public agencies. According to representatives of the farming and applicators, the vast majority of this information is maintained manually by farmers and applicators. They also stated that few either maintain, or have the capability to maintain, the data electronically and creating such a system would be financially burdensome. While software programs exist to enable applicators and farmers to gather application information electronically, there was no consensus on whether electronic reporting could be readily implemented. The availability of appropriate software and the issues of software interfaces were issues that were not resolved. The fact that usage does not equate to exposure was also an issue that was acknowledged throughout the deliberations.

There was agreement that data would be valuable for identifying use trends and would assist in targeting specific monitoring efforts by researchers and agencies charged with protecting the environment and public health.

There is uncertainty about the precise projected cost to implement a mandatory reporting system. According to the Department of Legislative Services, the estimated cost to implement a reporting system as described in the original bill is \$1.3 million. A separate estimate that was presented to the Workgroup from individuals who have developed data storage systems indicated that it could cost MDA between \$250,000 and \$350,000 to establish a database reporting system and a similar amount for annual operating costs for the system. Other states report a higher cost for

implementation. After more detailed analysis, it was not possible for the Workgroup to reach a consensus on the estimated cost for implementation by MDA. No information was presented regarding the cost to applicators or farmers to implement such a system.

***Finding 3: Determine the appropriate format to make data available for research***

The U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) has conducted Maryland's agricultural pesticide use survey under contract with the Maryland Department of Agriculture. The last survey was for statewide usage in 2011. It is a voluntary survey of usage by farmers, private and commercial applicators and public agencies. The 2011 survey attempted to survey all certified applicators but captures only approximately 1500 of an estimated 12,000 non-certified farmers. Responses were received from 62% of the public agencies, 57% of the surveyed farmers, 41% of the licensed commercial applicators and 52% of the certified private applicators.

The NASS survey data were neither disaggregated by geography nor other temporal or spatial method to determine how much, or which, pesticides have been used in a particular area of the state. There was also debate, and disagreement about the scientific reliability of the survey methodology. The relevant data needed to understand and answer some of the important questions identified above would include:

- The amount of pesticide applied by type and relevant geography (watershed, zip code, census tract, or specific location that could be appropriately identified); and
- Information related to the time(s) when the pesticide is applied.

Since there was no consensus on creating a mandatory data reporting system as envisioned under HB 775/SB 675, or on the specific questions that would be addressed by such a system, the appropriate format for such data was not discussed.

***Finding 4: Review scientific research and data regarding the use of pesticides and the potential for harm from pesticides***

The Workgroup heard testimony from public health experts and environmental scientists regarding the known and potential for harm from pesticide exposure. The group also heard about existing databases, such as that in California, and the value provided to researchers. Similarly, information was presented from federal agencies that have engaged in research regarding pesticide exposure. While there is clear evidence from national bio-monitoring and environmental surveys that people and ecosystems are exposed to a variety of pesticides, it is not possible to say whether and how those exposures relate to specific pesticide application. There was agreement that, while a database on pesticide application would provide information about use, it would not, by itself, answer specific questions about exposure or health.

***Finding 5: Determine and make recommendations regarding how to protect the privacy of a person reporting data***

Representatives of the farming community were particularly concerned about the issue of privacy. While it was not the consensus of the Workgroup, some members suggested that any data reported from a particular geographic area could be used to target farmers for litigation. Information regarding the operations of the California data system did not support this premise.

Under current Maryland law, there are no specific protections other than those provided by the Maryland Public Information Act for the privacy of those who provide information on pesticide application and usage. The Pesticide Applicator's Law is silent as to privacy of application data. The MDA Secretary does not have specific authority to protect the confidentiality of the data nor of those who are required to maintain it.

The NASS survey provides a well-established way to collect data about pesticide usage. The NASS survey provides a mechanism to collect and report pesticide usage data in a confidential manner that protects the identity of the individual reporter. If utilized, the data are provided in an aggregated format based on information provided by individuals to NASS. Federal law prohibits the specific identities of those reporting to be revealed under penalty of federal criminal law.

***Finding 6: Determine and make recommendations regarding the best method for assembling and maintaining data***

Data are currently maintained by farmers, applicators and public agencies, as required by law. The MDA Secretary has the authority to require these individuals and entities to provide the data to the Department but, to date, this authority has been exercised only for compliance and enforcement purposes and not for research or other purposes. The Workgroup was not advised that the Secretary had ever been requested to provide such data.

There was no consensus regarding the value of assembling and maintaining pesticide usage data. It was agreed that a NASS survey could provide some useful data. However, the survey is not currently designed to answer Maryland-specific public health and environmental questions.

***Finding 7: Determine the need for and make recommendations regarding regulations and guidelines needed for a consistent, unified database***

Since there is no consensus that a database is needed, the Workgroup did not determine that there is any need for either regulations or guidelines to support a database.

***Finding 8: Determine whether legislation is necessary to facilitate access to pesticide information and data***

While there was no agreement that a database should be established, the Secretary has the authority to establish one without legislation. To date, the Secretary has not expressed a willingness to create such a database, so legislation appears to be needed to create one. Additionally, the Workgroup held extensive discussions about the use of the NASS survey as a means for obtaining a greater amount of information. Should an expanded NASS survey be needed to address the interests of the Workgroup, additional funds will likely be needed. If this requires a fee increase, legislation would be required.

***Finding 9: Determine whether it is feasible to gather data from retailers and homeowners***

The extent of pesticide usage by homeowners, farmers who are not certified applicators, and others who purchase from retailers is unknown; it is complicated and expensive to establish a means for identifying the extent of their usage, mirroring difficulties found in other states. While this issue was discussed, it was determined that there is no effective or cost-prohibitive means for gathering information on usage by homeowners or others who may utilize pesticides in their businesses or on their property.

***Finding 10: Conduct a cost-benefit analysis of implementing and maintaining a data reporting program and any recommendations that will have an economic impact on the State.***

The Workgroup did generally perform a cost-benefit analysis as part of the interim report, although a detailed and specific analysis was not undertaken. As indicated in the Findings above, and specifically Finding 2, there was a debate about potential costs of implementing such a database and the cost to the state and/or manufacturers who could be assessed a greater fee for registration. The Workgroup determined that a detailed and specific cost-benefit analysis would not be feasible without a more detailed description of the type and extent of the data to be assembled and maintained.

***Therefore, the Work Group recommends:***

1. The MDA should contract with NASS to develop and implement a statewide survey for the years 2014 and 2015. It is understood that reports on usage will probably be released in 2016 and 2017, respectively.
2. In order to develop a more useful NASS survey instrument MDA shall address the content and adequacy of the NASS survey by convening an advisory group which shall work with and advise in the development of the NASS survey. This advisory group shall :

- a) Include the Chair of the Pesticide Advisory Committee, and scientists with no vested or conflicts of interest with knowledge of research methodology and survey design, and the impacts and usage of pesticides in public health and environmental health
  - b) Identify the specific questions regarding research needs and benefits and data elements that should be addressed in subsequent NASS surveys, including spatial data, temporal data if feasible, a determination of the smallest subset of identifiable data by geography that can be achieved within the budget and within the realm of NASS confidentiality, and how to provide disaggregated data that is of the greatest value to researchers and public agencies
  - c) Identify techniques, systems and methods for expanding the number of those being surveyed and increasing the response to the survey to best ensure a representative response from all sectors being surveyed with a goal of 80% return.
  - d) Determine the most scientifically and statistically valid data threshold for the survey results
  - e) Meet and develop the survey prior to June 1, 2014.
3. During the 2014 legislative session of the Maryland General Assembly, seek an increase of \$10 per product (an increase from \$100 to \$110) for product registration by all pesticide manufacturers seeking to sell their products in Maryland. These funds shall be used exclusively to fund surveys and data collection pursuant to the Workgroup.
  4. MDA shall post on its web site and the Maryland Open Portal, all survey results it currently possesses and as generated by future surveys. Survey results shall also be made available in a spreadsheet and/or searchable format.
  5. Upon the completion and publication of the 2014 NASS survey results, the Workgroup, in conjunction with the Pesticide Advisory Committee, shall evaluate the utility, benefits and performance of the NASS survey results. MDA may post other information on its and other web sites that may be useful in interpreting pesticide use data.
  6. Recognizing that technical information about pesticides and use data within a geographic area can be valuable in assessing and determining where to establish and pursue monitoring for public and environmental health, MDE, DNR, MDA, and DHMH shall identify, by January 1, 2015, all of their recommendations regarding monitoring locations and identify where pesticides have been identified and identify other possible monitoring needs and locations with a justification and cost estimate for any added sites.