

THE MISSISSIPPI WASTE PESTICIDE COLLECTION AND DISPOSAL PROGRAM

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Mississippi farmers use more than 44 million pounds of agriculture pesticides each year. Through the years, some of these pesticides have become unusable because their label registrations have either been canceled or suspended by the United States Environmental Protection Agency (EPA).

These unusable products, whether they are the result of regulatory action or simply left over from a previous growing season, are classified as waste pesticides.

Waste pesticides may lead to water quality problems as well as environmental and health concerns, especially when containers deteriorate or inadequate storage facilities are utilized. These substances cannot legally be applied or disposed of through conventional methods such as landfilling.

Recognizing this tremendous problem, the Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry (BPI) began efforts to establish a pilot program for waste pesticide disposal in 1993. It was determined by BPI that a waste pesticide disposal program would be the best means of providing Mississippi farmers and private landowners with an economical and environmentally conscious way to dispose of their unwanted or otherwise unusable pesticides.

As with any program, justification is always a key issue. The following are just a few of the reasons BPI used to justify the necessity of this program. Mississippi farmers and private landowners had no cost-effective way to dispose of their waste pesticides. Removing these hazardous chemicals from farms in which proper storage facilities were not available would eliminate a tremendous risk to the environment.

Cancelled or suspended pesticide registrations by EPA are and will continue to be an issue in the future. Above all, a waste pesticide collection and disposal program would help prevent the occurrence of illegal disposal activities within the state.

The foundation for the program was established by creating a waste pesticide disposal task force. In addition to BPI personnel, the task force was made up of members from various federal, state, and private organizations. **(See attached list).** Authorization for the funding of this program was provided by the enactment of the Mississippi Waste Pesticide Disposal Law of 1993. The Mississippi Legislature approved BPI's request to increase chemical registration fees by 50 percent to fund the program. This increase raised registration fees from \$50.00 per registration to \$100.00. A sunset clause was attached to this legislation that limited the program funding to 5 years. It is very important to note that a sunset clause can be a real problem if continuation is to be anticipated beyond the initial time frame.

BPI was designated as the lead state agency for waste pesticide disposal. BPI was charged with developing and administering the bid proposal, developing a vendor list of qualified contractors, mailing the bids to prospective contractors, receiving and evaluating the completed proposals and awarding the bid contract. Contracts were awarded based on the lowest, best bid. This approach allowed BPI the flexibility to select a contractor based on their overall reputation and not solely on the lowest price for the job. In addition to the above-mentioned tasks, BPI was solely responsible for enforcing all aspects of the bid contract.

The Mississippi Cooperative Extension Service (MCES) provided invaluable assistance in

educational and promotional support. MCES personnel coordinated efforts with county extension agents and local farm groups, developed and published informative materials such as site maps, assisted BPI with site selection, and distributed information and materials to participants. It is an understatement to say that without this assistance the program would not have been possible.

The first-ever waste pesticide collection and disposal event in Mississippi was held in Grenada County on November 10, 1994. Approximately 22,970 pounds of waste pesticide was collected at an average cost of \$3.13 per pound for disposal. The total contract cost equaled \$71,959.93. A cost comparison can be made against this cost value to see how bid prices are inflated at the beginning of a new program. When compared to future events, this pilot was somewhat expensive. This is due in part to the hesitancy of the private contractor's ability to take a chance on the unknown amounts of pesticides that may or may not be collected. A pre-registration approach to this initial event more than likely would have eliminated some of the fear and yielded a lower price per pound for disposal.

Upon completion of the pilot event, the task force reconvened to discuss the possibility of future programs. Following a review of the very successful pilot, the task force decided that the program should continue for the time period specified in the authorizing legislation.

The program experienced some directional changes during its term. In 1995, during one of the collection events, the program expanded to accept in addition to waste pesticides, used farm tires, depleted batteries, and used motor oil. Although BPI realizes the definite need to remove these hazardous items from the farm, it was decided in 1996 to exclude these items from the waste pesticide program due to logistical problems and confusion among the participants.

In the beginning, the program participation was limited to farmers and private landowners. In 1998, a decision was made that would allow commercial entities to participate in the program at no cost to the establishment. It was the opinion of BPI that waste pesticides are just that; they are waste pesticides whether they are commercially or privately owned. Therefore, they present a real need for proper disposal.

There usually exists a set chain of events that must occur in order for any program to be successful. In previous paragraphs, I discussed some of the key procedures BPI used in developing Mississippi's waste pesticide collection and disposal program. However, getting the program authorized is only half the battle. An effective means of coordinating and promoting collection and disposal events contributed to the success of the Mississippi program. MCES was invaluable in achieving this goal through the outstanding efforts of their county agents. By applying no fees or pressure to participate, BPI was able to maintain a very open and voluntary atmosphere. The participating public very well received this approach. A regulatory approach will not be as effective in achieving a goal. Provide over-pack containers to the participants free of charge prior to the event in order to secure deteriorating packages. Answer any questions about the program, and be very supportive and friendly. Selecting a reputable contractor is very important. Events such as these can turn into regulatory nightmares if the contractor is not knowledgeable of the job at hand. A lot of guesswork can be avoided by preparing a very thorough bid proposal. References are an invaluable tool for contractor selection. Maintaining a positive line of communication with the contractor before, during, and after the event will insure bid requirements are understood and carried out appropriately. Try to schedule disposal events to avoid conflicts with farming activities and, if possible, select a farm-related site to hold the event.

A few logistical notes to keep in mind while planning the event are as follows: insure electricity and water are available at the site, calibrate the contractor's scales prior to the collection, supply over-pack containers to the participants who require them prior to the event, provide adequate security at the site, designate separate entrance and exit routes for traffic, establish set-up and take down times and always anticipate early and late arrivals. A pre-event meeting 30 minutes prior to start-up is a very good way to ensure people working with the collection understand their individual duties and responsibilities. Pertinent safety and emergency information should be distributed at this time. By providing for each of these concerns, BPI discovered that the actual event ran very efficiently.

As with any program of this nature, there are problems that will be encountered and will have to

be overcome. I think it is safe to say that the initial reluctance of participants to utilize the program was our biggest hurdle. It took some time for the farming community to trust that the program was without catches. It is my opinion that the term "Amnesty Days" is a very inappropriate title given to Waste Pesticide Collection and Disposal Programs. EPA's use of this term early on definitely hurt the program participation in the beginning. Other known problems included miscommunication, adverse weather, and the occasional inclusion of non-pesticide related items such as paints and solvents. Prior planning for such situations will minimize the negative effects incurred by the event.

Mississippi's Waste Pesticide Collection and Disposal Program currently has properly disposed of 839,727 pounds of waste pesticide at an average cost of \$1.27 per pound. The total contract cost from 1994 to 1999 is \$1,066,784.17. As shown by the attached figures, the cost of prevention definitely outweighs the potential cost of remediation. **(Attached is a copy of the program statistics from 1994 to 1999).**

Currently Mississippi's program is inactive, pending reauthorization from the state legislature. However, in lieu of this problem, BPI has taken

alternate measures to extend the program's life beyond the sunset clause. In November 1999, BPI contracted with TVA to co-sponsor an event in Verona, MS. Approximately 23,623 pounds of waste pesticide were collected and properly disposed of at an average cost of \$1.24 per pound. The total contract cost equaled \$29,485.30. In addition, BPI in cooperation with MCES has made application for federal 319 Funds from EPA to sponsor four collection and disposal events in 2000.

In conclusion, Mississippi's Waste Pesticide Collection and Disposal Program has demonstrated the real need that exists for the proper disposal of such hazardous materials. Waste Pesticide Collection and Disposal Programs are cost-effective, necessary and in the states' best interest. Response to this program was very satisfactory from both the public and private sectors. Mississippi's program generated outstanding public support and has been used as a model for helping other states establish their own programs. It is my heartfelt opinion that no government agency charged with the tremendous responsibility of managing agricultural pesticides should be without a mechanism for disposing of such materials once they are declared a waste.

Waste Pesticide Collection and Disposal Task Force Members

- Mississippi Department of Environmental Quality
- Mississippi Department of Transportation
- Mississippi Public Service Commission
- Mississippi Soil & Water Conservation Commission
- Mississippi Farm Bureau
- Delta Council
- Mississippi Agricultural Industry Council
- Mississippi Pest Control Association
- Mississippi Nurserymen's Association
- Mississippi Association of Supervisors
- The Nature Conservancy
- U.S. Environmental Protection Agency

YEAR	PESTICIDE POUNDS COLLECTED	AVERAGE COST PER POUND	APPROXIMATE CONTRACT COST
1994	22,970	\$ 3.13	\$ 71,959.93
1995	257,621	\$ 1.21	\$ 311,963.63
1996	167,617	\$ 1.01	\$ 170,831.89
1997	153,463	\$ 1.45	\$ 222,667.12
1998	214,433	\$ 1.21	\$ 259,876.30
1999	23,623	\$ 1.24	\$ 29,485.30
TOTALS	839,727	\$ 1.27	\$ 1,066,784.17

Program Statistics 1994-99