

FREQUENTLY ASKED QUESTIONS

Q: What is the Southeastern Boll Weevil Eradication Foundation?

A: The Southeastern Boll Weevil Eradication Foundation (SEBWEF) is the organization that was established by growers and state and federal agricultural officials to carry out the eradication program. The foundation is responsible for program operations including mapping, trapping and spraying. SEBWEF sees that the program is implemented consistently from area to area to ensure that boll weevils are not re-infested into areas where the program has been completed. In addition to hiring personnel to conduct spraying, trapping and monitoring activities, SEBWEF also contracts with only licensed commercial pesticide applicators to conducting spraying activities.

Q: What is the Tennessee Boll Weevil Eradication Foundation?

A: The Tennessee Boll Weevil Eradication Foundation, Inc., provides oversight and direction for the program in Tennessee. The TBWEF is responsible for requesting farmer referendums to approve the program in areas targeted for expansion. TBWEF works with the Tennessee Department of Agriculture in collecting farmers assessments and administering the costs of the program. The TBWEF contracts for program services with the Southeastern Boll Weevil Eradication Foundation to carry out eradication activities.

Q: What is the responsibility of the Tennessee Department of Agriculture?

A: Under state law, the commissioner of agriculture is authorized to conduct a farmer referendum to approve the program in a given area when requested by the Tennessee Boll Weevil Eradication Foundation. For accounting purposes, monies for the boll weevil eradication program are administered through the department's budget then made available to the Tennessee Boll Weevil Eradication Foundation. TDA provides an additional important function by regulating the use of pesticides. TDA's Regulatory Services division is responsible for investigating any potential misuse of malathion to ensure public and environmental safety. Regardless of EPA's low-risk assessment of malathion, TDA is concerned with its proper use, according to label directions. The department has the authority to levy civil penalties or revoke licenses in cases of misapplication depending on the severity of the offense.

Q: How does the eradication program work?

A: The program uses a system of carefully controlled spraying, trapping and monitoring. During the initial phase (year 1) of the program, mandatory applications of malathion are made according to a pre-determined schedule on every acre of cotton at a frequency of every five to seven days starting in August. Then the frequency is reduced to every 10 days during the later part of the growing season until the first frost which usually occurs in early to mid-October. The basis for an automatic schedule is biological in nature and has to do with the need to break the reproductive cycle of the weevil. During the second phase (years 2 – 5) the automatic spray schedule gives way to an

intensive trapping program (one trap per 1-2 acres) where malathion applications are made only in those fields where weevils are detected. This phase of the program will start in May of each year and continue until the first killing frost. As the program progresses, the frequency of spraying is reduced further as the weevil population is eradicated. The final phase of the program involves trapping at a lesser density (one trap per 10 acres) to monitor for boll weevils, with spot sprayings only as required.

Q: What is malathion and why is it used?

A: Malathion is an insecticide in the organophosphate group of chemicals and is widely used on many different kinds of food crops. Malathion is registered for controlling insects in homes, gardens, institutional settings, agricultural settings and for mosquito control. Malathion saw widespread use in New York City in 1999 to control mosquitoes suspected of transmitting the viral disease encephalitis. It has also been used extensively in California and Florida to control outbreaks of the Mediterranean fruit fly (Medfly). The U. S. Food and Drug Administration (FDA) supports a pharmaceutical use of malathion as a treatment for head lice in children. Due to its low toxicity to humans, minimal impact on the environment and high effectiveness on boll weevils, malathion is ideally suited for use in the Boll Weevil Eradication Program. Extensive studies by the U. S. Environmental Protection Agency (EPA) and others conclude that malathion poses little human health or environmental risks.

Q: Specifically, what do EPA studies reveal about malathion?

A: As a result of the Food Quality Protection Act (FQPA) of August 3, 1996, EPA has been in the process of reassessing risks associated with the use of specific pesticides. One of the first classes to be reassessed was the organophosphates, including malathion. In addition to the revised human health risk assessment for malathion for the purpose of issuing a Reregistration Eligibility Decision (RED) Document, EPA has conducted a special assessment for the use of malathion in the Boll Weevil Eradication Program (which included monitoring in Tennessee) to ensure that the potential exposures to malathion relative to the program are not underestimated. EPA's Health Effects Division (HED) has concluded that combined dermal and inhalation risks for applicable scenarios do not trigger concern for post-application residential (bystander) exposure in areas nearby fields being treated for boll weevil. Furthermore, these risk assessments are based on the assumption that malathion will be used at the maximum labeled rate of 16 oz. per acre. All aerial applications of malathion in Tennessee are made at a 10 oz. rate, a 38% reduction from the maximum rate.

Q: How is malathion applied?

A: 98% of the malathion applied by the boll weevil eradication program is applied by fixed-wing aircraft. The remaining 2% is applied by helicopters, high-cycle ground equipment and mist blowers. However starting in 2001 the Southeastern Boll Weevil Eradication Foundation began making greater use of ground equipment and helicopters, especially adjacent to sensitive areas. All aerial applicators utilize Global Positioning

System (GPS) technology which not only allows for very precise placement of the product, but provides a record of critical data pertaining to the application process.

Q: How much malathion is used?

A: The amount of malathion used to kill boll weevils is very small. Only 10 fluid ounces of malathion are used to treat an entire acre (43,560 square feet). That is not enough fill a 12 ounce soda can.

Q: What if I suspect that pesticides are being improperly applied?

A: The Tennessee Department of Agriculture regulates all pesticides to ensure their proper use according to label direction. If you suspect that pesticides have been misapplied, you may file a report with TDA's Regulatory Services division by calling toll-free 1-800-628-2631. An inspector will be assigned to investigate the case. This will require that you provide additional details about the alleged misapplication through follow-up phone calls or visits by the inspector. Samples to detect the presence of pesticides may also be required.

Q: Who do I call regarding health questions or concerns?

A: If you have concerns that your health or the health of a family member may have been adversely affected by exposure to pesticides, you should consult your family physician immediately. The Tennessee Department of Health is working with local health departments and the medical community to assess any reported health problems associated with the spraying of malathion. In addition, the Department of Health routinely works with the Department of Agriculture in assessing risk to human health in cases where misapplication is suspected. To date there have been no documented health problems associated with the program.

Q: How does this program benefit the general public?

A: The most significant benefit is the reduction of pesticides introduced into the environment. After the boll weevil is eradicated from an area, farmers generally reduce cotton insecticide use by 40 to 90 percent. In addition, as cotton becomes more profitable, cotton producers are able to spend greater amounts in the local community for equipment, goods and services. Economic studies have shown that after the program is completed in an area land values tend to increase.

Q: How will the eradication program affect other cotton insects?

A: Boll weevils are considered a key pest in cotton production because the insecticides cotton producers use early in the season to control boll weevils also eliminate populations of beneficial insects. With the elimination of the boll weevil comes the elimination of the threat to beneficial insects. With a resurgence of beneficial insects that prey on secondary cotton pests such as bollworms and aphids, the need for pesticide applications

to control these secondary insects is further reduced. Growers in eradicated areas can now delay initial spray operations, reduce pesticide rates, use alternative pesticides or lengthen the intervals between sprays to reduce their operating costs while controlling remaining cotton pests.

Q: What is the legal framework of the program?

A: In 1993, enabling legislation (T.C.A. 43-6-401) was passed relative to the boll weevil eradication program, providing the legal framework for the operation of the program. This legislation does not mandate that a program will be operated, but provides a mechanism by which cotton growers in the state may request, by referendum, the implementation of an eradication program. Upon passage of a grower requested referendum by at least a two-thirds majority, participation in the eradication program is required for all cotton growers in the stipulated area, and the provisions of the statute, and rule promulgated in accordance to the statute, become effective. This statute also grants authority to the Commissioner to certify a cotton grower's organization and name cotton growers to the organization's board of directors for the purpose of oversight of the program.

Q: What group is recognized as the certified cotton grower's organization and who makes up its board of directors?

A: The Tennessee Boll Weevil Eradication Foundation, Inc. is the certified cotton grower's organization in Tennessee for the purpose of oversight of the program. Its board of directors and officers are as follows: Allen King, Chairman (Haywood County cotton producer); Gilbert Bradley, Vice-Chairman (Lincoln County cotton producer); Boyd Barker, Secretary/Treasurer (Tennessee Department of Agriculture); Steve Bailey (Crockett County cotton producer); Willie German, Jr. (Fayette County cotton producer); John Lindamood (Lake County cotton producer); R. V. Via (Crockett County cotton producer)

Q: What are the major legal requirements of the program?

A: First of all, the statute gives the Commissioner, or his designated representatives (employees of the Southeastern Boll Weevil Eradication Foundation (SEBWEF) and/or employees of the Tennessee Department of Agriculture) the authority to enter cotton fields for the purpose of carrying out the boll weevil eradication program. Additional requirements relate to the reporting of cotton acreage, the payment of assessments, and the destruction of cotton stalks. These requirements now apply to all regions of the state.

Q: What are work units?

A: Work units are subdivisions of regions. Each work unit consists of approximately 100,000 to 120,000 acres of cotton. Tennessee has six work units

Q: What are field units?

A: Field units are subdivisions of work units. Each field unit consists of approximately 5000–6000 acres of cotton. Each Field Unit Supervisor (FUS) oversees approximately five trappers that service the traps around each field. Each FUS also works with one aerial applicator to schedule insecticide applications as needed. Each aerial application is then followed up by a perimeter application by mist-blower drivers.

Q: What are the acreage reporting requirements of the program?

A: By April 1 of each year, report your planting intentions directly to the Field Unit Supervisor(s) responsible for your cotton, making special note of any new cotton fields. You should have the necessary information to contact your Field Unit Supervisor to set up an appointment for him/her to meet you to discuss planting intentions. Otherwise, they may be contacted via the Southeastern Boll Weevil Eradication Foundation work unit offices.

By July 15 of each year, certify your actual cotton acreage at the USDA Farm Service Agency (FSA) office that administers each county where you grow cotton. In the event FSA extends this deadline for their reporting requirements, we will follow suit.

Q: How much is the assessment per acre and when is it due?

A: Maximum assessment rates were set by referendum. The maximum rates for 2002 are \$35.75 per acre in Region 1, \$28.00 per acre in Region 2 and \$22.00 per acre in Region 3. In the past rates have been reduced from 20-35 percent by state funding. If additional state funding is received in 2002, the assessment rates will be reduced by that amount. The final assessment rate will be announced as soon as funding measures are finalized.

The deadline for payment of the assessment without penalty is October 15 of each year. Payments after this date will be subject to a \$5.00 per acre late payment penalty. All payments should be made at the FSA office that administers each county where you grow cotton. For example, if you grow cotton in Fayette and Hardeman counties, assessment payments should be made at the FSA offices in Fayette and Hardeman counties for the cotton in each county, realizing there are some administrative exceptions.

Q: How is the program funded?

A: Tennessee's 2001 boll weevil eradication program cost approximately \$24.4 million. Additionally a loan payment was made to Farm Service Agency (FSA) in the amount of \$7.6 million, bringing total program costs to approximately \$32 million. Approximately 35% of total program costs were covered by grower assessments, 10% was funded by the State of Tennessee, and 2% by the Southeastern Boll Weevil Eradication Foundation (representing contributions by fellow cotton growers in the Southeast). 13% of program costs for 2002 was funded by the United States Department of Agriculture, representing a major increase in federal funding for 2001. The balance of program costs was funded by a loan from the Farm Service Agency in the amount of

\$14,116,000, representing approximately 40% of program costs. These percentages are subject to change from year to year as assessment rates and costs change.

Since a substantial amount of borrowed funds has been involved for the past four years, the principal loan balance as of December 31, 2001 was \$32,306,278. This year-end principal balance should have peaked with repayment in full, including interest, occurring during the seven-year payment phase of the program.

Q: What are the requirements relative to stalk destruction.

A: Decades of experience have shown that destruction of cotton stalks is an integral part of successful boll weevil eradication, effectively removing over-wintering habitat for boll weevils. Therefore December 31 of each year has been established as the deadline to have cotton stalks destroyed. Extensions of this deadline will be considered on a case by case basis and a decision based on meteorological and other conditions.

Q: Why can't I treat my own fields for boll weevils?

A: While the goals are similar, there is a substantial difference in controlling boll weevils and eradicating boll weevils, with the management strategies for the two being poles apart. Under an eradication scenario, specialized equipment and formulations are employed on every single acre of cotton, allowing for a more comprehensive and efficient operation which utilizes the economy of scale and logistical capabilities that only a wide-scale program brings. This is truly a cooperative and coordinated effort, and of necessity must remain so.

Q: If we can successfully eradicate boll weevils, why don't we eradicate other pests?

A: Many insects depend on host plants for their very survival. In the United States, cotton is the only host plant boll weevils have upon which they depend for reproduction and survival. Therein lies the crux of this unique opportunity to eradicate what has been described as the costliest agricultural pest in U.S. history. We can eradicate boll weevils because we can precisely target where they are – cotton fields. Other, secondary cotton pests have a wide host range and can easily survive on other Tennessee crops and/or plants.

Q: What are the effects of the program on beneficial cotton insects?

A: Insecticide applications for boll weevils will kill beneficial insects in cotton fields whether applied by the individual cotton grower in the process of controlling boll weevils, or by the boll weevil eradication program. However, the beauty of this program is that successful boll weevil eradication brings a 40-90% reduction in cotton insecticide use, whereas perpetual insecticide applications at pre-eradication rates are necessary under control scenarios. With the boll weevil, and subsequent insecticide applications,

out of the picture, beneficial insects can flourish and perform their vital role as predators of secondary cotton insects.

Q: How long will the program last and what can speed up the process?

A: Normally, the active phase of the program lasts approximately 4-5 years, with the most intense insecticide applications occurring in the first two years. Your cooperation is a key element in speeding up the process. Keep in mind that program personnel must be able to navigate around the perimeter of cotton fields for trap placement and service, and for mist-blower insecticide application as necessary. Every effort to assist us in maintaining our traps and in providing a relatively clear passage around the perimeter of your fields will not only be much appreciated but will speed up the program. Although uncontrollable, another factor has major implications for program tenure – extremely cold winter weather. This occurrence can do more to enhance our efforts than any single effort on our part.