

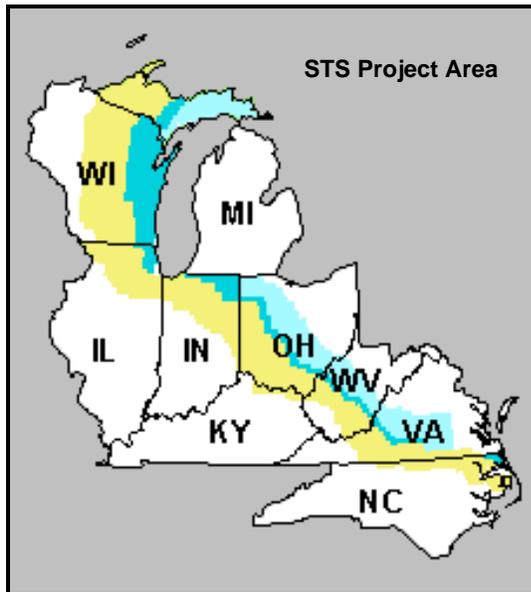


2002 Accomplishments In Slowing the Spread of the Gypsy Moth



Overview: Congress funded full implementation of the gypsy moth slow the spread strategy (STS) in fiscal year 2000. The USDA Forest Service (FS) and Animal and Plant Health Inspection Service (APHIS) expect that integrating STS into the USDA's national gypsy moth management programs will reduce spread rates of this exotic pest at least 50% from historical averages of 13 miles per year. The two USDA agencies along with state partners located along the leading edge of gypsy moth populations cooperatively implement STS. The states of Michigan, Wisconsin, Illinois, Indiana, Ohio, West Virginia, Kentucky, Virginia and North Carolina are actively involved in STS. Minnesota and Iowa will likely join the program in the near future. The nonprofit STS Foundation, which manages the STS program, provides the states with a formal framework for cooperation and ensures that federal funds are targeted where biologically needed. Key highlights from the 2002 season follow.

- A band totaling approximately 60 million acres (yellow shaded area on map) was comprehensively managed during 2002, with an additional 34 million acres (blue shaded areas on map) monitored less intensively to measure the program's effect on spread.



- Gypsy moth populations exploded across parts of the STS project area as a predictable side effect of the outbreak conditions that occurred during recent years behind and adjacent to the

project area in the states of Virginia and Wisconsin. The number of infestations as well as the total area infested increased significantly when compared to past years.

- STS program partners detected and delineated more than 160 distinct gypsy moth colonies within the STS area in 2001. Treatments subsequently occurred on 579,814 acres during the spring and summer of 2002. This was an increase of more than 200% in treatment acreage when compared to 2001 but the total area treated was still less than 1% of the project area. Average cost for treatments in 2002 was \$11.22 per acre.

STATE	# OF COLONIES MANAGED	ACRES OF TREATMENT	
		Larvicides (Btk or Dimilin)	Mating Disruption
NC	4	5,080	3,320
VA	13	3,938	160,640
WV	0	0	0
OH	10	1,442	33,080
IN	13	1,009	15,695
IL	25	7,003	21,340
WI	100	15,890	309,375
TOTAL	161	34,364	543,450

- Treatment evaluations indicate that 89% of the blocks treated with mating disruption in 2001 were successful whereas only 80% of the blocks treated with Btk in 2002 were successful. Btk failures occurred primarily in small treatment blocks (blocks < 100 acres); thus treatment success as a percent of total area treated with Btk is much higher at 97%. Spread rates continue to be variable across the project area, but the average spread rate for all areas remains below our target of 10.5 km per year.
- The use of mating disruption, a treatment that is specific to the gypsy moth, continues to increase in STS. Its use is critical to protect unique habitats and threatened or endangered species that occur within the project area. Not only is its use increasing but it has also become the most economical of the treatment options. The cost of mating disruption has decreased significantly as a result of reduced dosages and volume purchasing.



Gypsy moth mating disruptant on foliage

- STS partners contracted individually for the aerial application of larvicides but mating disruption treatments were implemented using a

Forest Service contract that serviced the entire STS project area. The average cost of treatment decreased by almost 50% in 2002 because doses used to disrupt mating were further reduced.

- STS partners deployed more than 75,000 pheromone traps during 2002 to evaluate past treatment efficacy and to detect or delineate newly established colonies that may require treatment in 2003. The total cost of monitoring was approximately \$4.3 million or an average of about \$55 per trap.
- Centralized data management, GIS, decision support and evaluation for the STS project cost approximately \$968,000. A recent development in this arena included Alpha testing of an iPAC palm computer integrated with a GPS receiver and loaded with custom software that was designed to prevent data entry errors. Results were encouraging and the units will be thoroughly field tested next year.
- The STS project requested and received \$2 million in supplemental funding to deal with the increased acreage recommended for treatment. During 2002 STS partner contributions collectively totaled:

Forest Service	\$ 9,812,160
STS Partners	\$ 2,475,715
APHIS	<u>\$ 270,000</u>
TOTAL	\$12,557,875

- APHIS funds totaling \$270,000 were used to staff regulatory positions in support of STS

