

IPM: ALIVE AND WELL IN SOUTH CAROLINA

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Abstract

In the 1960's some cotton growers in South Carolina were treating a crop up to 20 or more times with insecticides to control insect pests. In 1966 Clemson University's Extension Service began training cotton scouts. Community-wide cotton scouting programs were provided through the local County Extension Leaders. This was the first and most important step in the development of an IPM approach to cotton insect control. By the early 1970's most cotton farmers were recognizing the need for trained scouts. When the pyrethroid insecticides came on the market in 1978, growers were spraying less and enjoying greater success with bollworm/budworm control than ever before. Growers were still applying an average of six or more organophos-phate treatments to control boll weevil.

In 1983 a boll weevil eradication program was instituted in South Carolina. By 1985 the boll weevil was practically eliminated as an economic pest of cotton. The elimination of insecticides for boll weevils added another IPM dimension--conservation of beneficial arthropods during the critical month of June. This has reduced the need for early-season budworm treatments. Furthermore, research has shown that the economic thresholds for early-season infestations of budworms were too low, and could be increased. With these changes in budworm management, the reductions in numbers of early-season pyrethroid treatments may forestall the resistance development in tobacco budworm that has occurred in other states.

The introduction of transgenic cotton expressing the endotoxin proteins of *Bacillus thuringiensis* (*Bt*) will occur in 1996. With the IPM system now existing in South Carolina, many growers should be able to use this new technology to its full advantage. There are some secondary insect pests, such as stink bugs, that could become a problem when foliar pyrethroid sprays are no longer needed. It is likely, however, that many fields of *Bt* cotton in South Carolina will not have to be treated at all with a foliar insecticide.