

NEW AND IMPROVED COTTON BOLL WEEVIL TRAP FOR USE IN IPM, PREVENTION, SUPPRESSION AND ERADICATION PROGRAMS

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Abstract

The boll weevil trap and Grandlure pheromone are key components in IPM, prevention, suppression and eradication programs (BWEPS) for boll weevils. During the last 15 years, the Southeast Boll Weevil Eradication Foundation's (SEBWEF) trap became the most widely used trap in the Americas and became a mainstay for detection and spray decisions in IPM and US BWEPS. Without this trap, Grandlure pheromone and insecticide dispensers, the US BWEPS probably would not be possible with the technology being employed by most states; also, early season "pinhead" spray programs would not be as accurate in many IPM programs. The SEBWEF trap as currently manufactured has many operational deficiencies and a "new and improved" trap, as designed, patented and developed by S&S Trap Company (S&S), eliminates practically all of the deficiencies. Consequently, the new S&S trap provides financial savings in labor and replacements. It was designed to be as effective as the SEBWEF trap, but with more "user friendly" characteristics and with more functionality during installation and servicing-monitoring-inspections. S&S trap has more than 26 improvements when compared to the SEBWEF trap.

Introduction

S&S is proud to announce the commercial availability of the "new and improved," more user-friendly boll weevil trap for detecting and monitoring boll weevils in eradication and IPM programs. The new trap has only three parts, the Base Cup, Cone and Capture Cylinder. These parts are durable, color-fast, UV resistant, recyclable and easier to assemble, load, clean out, stack, and disassemble.

Key Features and Improvements to the Base Unit

See PHOTO 1

- Bases will not stick together.
- Entire component is more flexible and will not become brittle over time.
- Inside flat surface provides for quicker and easier "bar coding".
- Color will not fade.
- Base is designed with durable and improved "holders" for wooden stakes, broomsticks, bamboo stakes and fiber-glass rods.
- Base has a "nail-head X slot" for wooden stakes and "tie-down holes" for bamboo takes and/or fiber-glass rods to help keep the Base attached to the stake.

Key Features and Improvements of the Cone

See PHOTO 2

- Positive locking system to the Base that does not become 'brittle.'
- Positive locking system to the Cylinder.
- One piece construction.
- Easier to clean out.
- Does not "rust", deform or lose orifice dimensions.
- "Tamper-tie " holes.

Key Features and Improvements of the Cone

See PHOTO 3

- 85% more top ventilation holes for pheromone liberation.
- 14% more capture area in Cylinder.
- Positive Cylinder locking system with Cone.
- One piece construction.
- Much more easier "to see" weevils.
- Four holder clips for pheromone and insecticide dispensers.
- One holder slot for the "chip" insecticide dispenser.
- Three slots for weevil "snuggle spots".
- "Tamper-tie" holes.

Comparison between the New S&S Trap and the Old Trap

In general, the data collected from more than 25 replicated field tests by various researchers and extension specialists in the Mid South and Southwest States compare the S&S Trap to the SEBWEF Trap from biological, operational and economical aspects. In summary, their results illustrate that:

- The S&S Trap is statistically equivalent to the SEBWEF trap in weevil captures (data from large scale tests in the Rio Grande Valley and Upper Gulf Texas Coast).
- Operationally, the S&S Trap has a 40% more "user friendly" rating.
- From "Time and Motion studies conducted, it was concluded that in the case of the USA BWEPS (with an approximate 3,600 trappers), the use of the new S&S Trap in 2001 could provide a "labor" cost savings of about \$3,185,000; this savings would be more than enough to offset the purchase of the S&S Traps for the 2001 Program year.

Arizona	\$91,000	Arkansas	\$153,000
Louisiana	\$380,000	Mississippi	\$516,120
Oklahoma	\$104,720	Tennessee	\$153,000
Texas	\$1,333,140	SEBWEF	\$452,700
		TOTAL	\$3,852,280

Acknowledgments

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Specifications

- UV protection and stabilized color are added to respective parts.
- Packaged for 100 complete traps per case.
- Polypropylene Base and Cone sections, Acrylic Cylinder and plastic Tamper Tie.

Part	Dia. Top	Dia. Bottom	Height	Weight
Cone	0.3"	4.5"	4.0"	21 gm
Cylinder	1.75"	2.2"	2.5"	20 gm
Base	3.4"	4.5"	5.5"	59 gm



PHOTO 1.

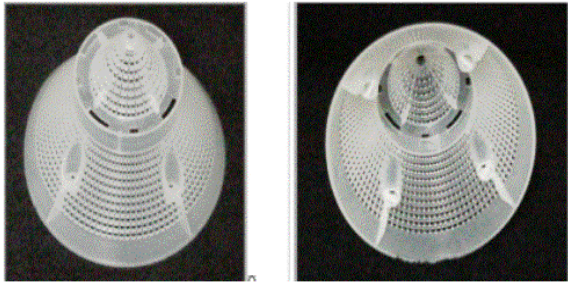


PHOTO 2.

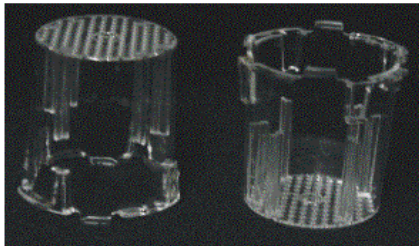


PHOTO 3.