Darryl Rester with the Cooperative Extension Service prepares for the next flyover spray test as pilot Tommy Watson circles back around for the final approach and spray.

DONALDSONVILLE — Tommy Watson aimed his biplane and discharged a plume of purple dye toward a line of paper targets in a field. On the ground, observers ran for cover behind their trucks.

Watson and other pilots tried to hit the targets, while minimizing the amount of mist floating to the edge of the field and evenly distributing the dye on the targets.

Watson, a pilot for Air Farm Inc. in Donaldsonville, joined his co-workers and pilots from Gull Aire of Thibodaux on Thursday to test the efficiency of their crop-dusters with the help of Darryl Rester, an engineering specialist with the Louisiana Cooperative Extension Service, and Ascension Parish County Agent Bill Davis.

All went well when they correctly gauged the wind direction and velocity, the airplane’s turbulence, as well as the size, pressure and position of the nozzles on the boom below the airplane.

The pilots and Rester made the necessary readjustments after each trip and were especially perturbed when floating purple mist twice hit the spectators.

“We’re trying to live down the old crop-duster image,” said Air Farm owner Willie Melancon, noting that he preferred the term “aerial applicator.”

Still stinging from the bad publicity aimed at the industry after a series of fish kills in southern Louisiana last summer, Melancon was quick to point out that his firm is “not a fly-by-night operation.”

The insecticide azinphos-methyl, used to kill sugarcane borers, was linked with 15 fish kills, although Air Farm was not implicated in any of the fish kills.

Some environmentalists claimed the state Department of Agriculture and Forestry did too little too late to address the problem.

Melancon said he believes the fish kills were due to low oxygen caused in part by chemical runoff from crop fields. Because of the heavy rains, the pilots were spraying much more fertilizers and insecticides, said Bob Giglio, a pilot for Farm Air.

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Melancon owns four specially built airplanes that cost an estimated $180,000 each and a $70,000 round applicator. Last year, he and his three pilots treated more than 180,000 acres of farmland from White Castle to Edgard with insecticides, he said.

Melancon said he and his three pilots each have more than 18,000 career hours of flying experience.

Giglio, who has 16 years experience working between four and five months a year as a crop-duster, suffered a broken cheekbone and nose last year when he crashed near a Thibodaux subdivision while working for Cane Air of Thibodaux.

It was the only major mishap in his career, Giglio said, adding that he forgot about the power lines hidden behind a row of trees.

He said the thrill of the job is worth it. "If I couldn’t crop dust, I wouldn’t fly any other way," Giglio said.