It’s not common to find a farmer raving about the success of government-mandated farm prac- 
tices. But Rick Roth, a sugarcane, vegetable, and rice grower in South Florida, thinks the best management practices (BMPs) program that evolved from a lawsuit to reduce phosphorus, or P, loading into Everglades National Park in the early 1990s is a shining example of how government, university researchers, and farmers worked together for a viable solution to the problem.

In 1994, the Florida State Legislature signed into law the Everglades Forever Act over concerns about phosphorus fertilizer leaving the Everglades Agricultural Area (EAA) and polluting the Everglades, with the BMP program implemented basin wide in 1995.

Roth farms in the EAA where 150 farming entities have permits under the BMP program, which is administered by the South Florida Water Management District (SFWMD). Currently 467,442 acres in the EAA are under permit with 90% of the land privately owned and where the primary crop mix is sugarcane rotated with corn. Sod, vegetables, and rice are also common in the rotations.

Like other farmers in the EAA, Roth wasn’t thrilled about the lawsuit, or with complying with government regulations and the additional costs of implementing the BMPs. By law, farmers have to pay $24 per acre for Everglades restoration with another $5 per acre going to the EAA Environmental Protection District for research and extension. But 20 years later, after the Everglades Forever Act passed into law, Roth has few complaints about the program.

“The program is working very well because it’s a study in how government works best,” he says. “It’s a situation where a government agency has similar goals to the farmers. They both are interested in flood control and irrigation, and both understand that the primary goal is to move the water.”

The goal of the BMP program is to reduce total phosphorus discharged from the basin by 25% of the documented amount discharged during the pre-BMP baseline period of 1978 to 1988, explains Samira Daroub, professor of water and soil science at the University of Florida who has researched the effectiveness of the BMP program. Most phosphorus is bound to soil particles eroding from the EAA into the Everglades. The major water quality concern, says Daroub, was the resulting dominance and expansion of cattail at the expense of sawgrass marsh or slough communities.

Since the program was implemented, the decline in phosphorus discharged out of the EAA has more than exceeded the 25% goal, says Carmela Bedregal, engineer supervisor and section lead at the Everglades Regulation Bureau.

In fact, the long-term average of reductions at the EAA-wide level exceeds 50%, demonstrating the effectiveness of BMPs. The legislature provides a tax incentive credit to farmers for any phosphorus load reductions achieved in excess of 25%.

With annual rainfall of about 60 inches per year, managing farm runoff and the phosphorus that goes with it is no easy task.

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Rick Roth has more than 5,000 acres planted in sugarcane, rice, and vegetables in Palm Beach Co. Photo by Eric Zamora, University of Florida Institute of Food and Agricultural Sciences.