AGRICULTURAL BEST MANAGEMENT PRACTICES ASSESSMENT TOOL (BMPAT)

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BMPAT is being developed to assist Florida farmers and Florida Department of Agriculture and Consumer Services (FDACS) staff with selecting and implementing the most cost effective BMPs associated with FDACS' BMP assistance programs. The overall objective was to have an effective tool that we allow farm level BMP programs to be quantitatively evaluated for their environmental benefits so that they can be better optimized. The BMPAT allows users to compare offsite water quality impacts associated with their past, current, and various proposed future BMP practices. BMPAT also provides estimated implementation, operational, and maintenance costs for the BMPs, which are used to provide cost effectiveness values for the various selected BMPs in terms of dollars per pound of nutrient (nitrogen and phosphorus) being reduced.

To date, cow/calf and sod operations have been developed in the BMPAT user-friendly Excel based program. Relevant literature and data sources as well as technical advisory groups consisting of farmers, grower association leaders, university experts, and Archbold Biological Station and FDACS staff were used to build and quantify the algorithms and parameter data sets. In addition, the advisory groups helped test and evaluate the utility of the BMPAT for farmers and agency staff. A trial application of the cow/calf BMPAT was run for various pasture conditions for the heavily monitored Buck Island Ranch and was found to be robust in predicting observed nutrient concentrations.

PRESENTER BIO: Dr. Del Bottcher is president of Soil and Water Engineering Technology, Inc. He received his BS in Physics from South Florida University, MS in Agricultural Engineering from the University of Florida, and PhD from Purdue University. He has over 40 years of experience in BMP development, hydrologic and water quality modeling, and analysis of watersheds in Florida. He has managed over seventy related projects.