PROJECT SUMMARY

Instructions:
The summary is limited to 250 words. The names and affiliated organizations of all Project Directors/Principal Investigators (PD/PI) should be listed in addition to the title of the project. The summary should be a self-contained, specific description of the activity to be undertaken and should focus on: overall project goal(s) and supporting objectives; plans to accomplish project goal(s); and relevance of the project to the goals of the program. The importance of a concise, informative Project Summary cannot be overemphasized.

Title: Integration Of Spatially Gridded, High-Resolution Remote Sensing Data For Scheduling Irrigation In Real-Time Grower Tools In Pr, Usvi And Fl

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CO-PD: Hain, Christopher R.	**Institution:** University Of Maryland
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This integrated AFRI project within Water for Agriculture Challenge Area addresses Program Priority Areas: –How can the quality of water for agricultural use be sustainably improved through 2050? –How can sufficient water supply for agricultural use be achieved in consideration of competing demands? –How will new knowledge be delivered to agricultural and nonagricultural water users to understand the problems or issues being addressed and actions necessary to identify appropriate solutions for these problems? The geographical region is Puerto Rico (PR), the U.S. Virgin Islands (VI) and Florida (FL). Pressures from competing water demands, mandates to protect natural ecosystems, and dependence of agriculture on irrigation strain water supplies across these regions. As climate variability reduces certainty of maintaining high food import rates in PR and the VI, increased food production on site requires higher water demands. In FL, increasing populations are similarly placing further demands on limited farmland, mandating need for more efficient, accurate water use. Real-time, national satellite program-based remote sensing information on soil moisture (SM), evapotranspiration, and incorporation of modeling products, can produce applications that meet irrigation decision-making needs. The research and extension activities will demonstrate value of high-resolution remote sensing of vegetation and SM/drought-related plant stress for commonly grown agricultural crops by developing innovative, long-term solutions sensitive to changing water management needs for defining new irrigation scheduling techniques. Land Grant Universities (Universities of Puerto Rico, Florida, Virgin Islands) will capitalize on institutional knowledge, experience and farmer connections to develop focus groups that guide development of new irrigation tools.