

## **Evaluation of flood and drip irrigation for rice production on St Croix, USVI**

*Thomas W. Zimmerman, Biotechnology & Agroforestry, University of the Virgin Islands Agricultural Experiment Station, RR#1 Box 10,000, Kingshill, VI 00850. Email:tzimmer@uvi.edu*

Rice is normally grown for production under flooded paddy conditions. The Virgin Islands have limited fresh water resources that limit rice production utilizing a flooded paddy. Three varieties of rice, 'Bengal', 'Cybonet' and 'Neptune' were grown to compare production under both drip and flood irrigation conditions. There was no visible difference between the flooded paddy and drip irrigation for growth, flowering or maturity. There was no difference between treatments for plant height within a variety. The flooded paddy rice had better weed control than the drip production. 'Cybonet' was shorter and two weeks earlier than both 'Bengal' and 'Neptune'. Rice production for 'Cybonet' was better with drip irrigation than flood irrigation, 2,565 and 2,015 lb/acre respectively. 'Bengal' had the best production, 3,720 lb/acre and benefited from the flooding as compared to drip irrigation, 3,505 lb/acre. 'Neptune' did better with drip irrigation, 3,240 lb/acre, than from flooding, 2,930 lb/acre. Rice can be successfully grown in the Virgin Islands with drip irrigation and have yields comparable to a flooded paddy system.

**Palabras Claves/Key Words:** Paddy rice, Water conservation, *Oryza sativa*