

ABSTRACT

PRODUCTIVITY IN THE GUYANESE RICE INDUSTRY

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This study examines the production experience in the rice industry of Guyana over a twenty-five year period 1955-1980. The study measures the inputs and corresponding output for the whole industry at both the macro level and at the farm level to obtain appropriate production indicators. Two respective productive functions are obtained, the familiar Cobb-Douglas as well as the less restrictive Translogarithmic Production Function.

Explanations for the size and trends of productivity growth that are observed, are drawn from the particular environment in which the industry is located. A test of these explanations

is carried out and leads to the conclusion that there are economic as well as non-economic factors which operate within the industry to produce changes in the way the factor inputs combine.

The analysis employs econometric techniques in order to specify the production function as well as to test for the significance of added qualitative variables which are posited as influencing productivity increases. Once the function is derived, an accounting procedure is used to isolate the effect on output of productivity growth as one aspect of the overall technological changes within the industry, while the coefficients of production are utilized in the determination of the effect of the other aspect of interest, namely, the elasticity of substitution among the factor inputs.

The study concludes with an interpretation of the results in terms of the implications for the continued growth of the industry as well as for wider economic behaviour.