



Research Paper

Hectareage response study of wheat crop using nerlovian model for Gujarat state

■ A.S. DUDHAT AND N.J. RANKJA

See end of the paper for authors' affiliations

Correspondence to :

A.S. DUDHAT

Department of
Agricultural Statistics,
College of Agriculture,
Junagadh Agricultural
University, JUNAGADH
(GUJARAT) INDIA

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ABSTRACT : The present study on hectareage response of wheat has been carried out using Nerlov's model for Gujarat state. The state level data relating to area, production, productivity and farm harvest prices of wheat were obtained from the published and compiled information by Directorate of Agriculture, Gujarat State, Gandhinagar for the period starting from 1980-81 to 2007-08. On the basis of the correlation co-efficients of selected independent variables with current hectareage under wheat crop, single equation, linear as well as log-linear models were formed. The partial regression co-efficient of expected yield of wheat crop was significant at different levels in all the single equation models. Yield factors like lagged price and expected price played an important role in hectareage change for wheat crop, while, non-price factors like hectareage of competing crop and expected yield little influenced the hectareage of wheat crop. Risk factors like price risk, return risk and yield risk had not showed a significant role in hectareage change for wheat crop. According to R^2 and adjusted R^2 , model $HEWH = -13186.99 + 0.0108HEWHL - 5.1574PWHL + 0.3095EPWH + 7.6970**EYWH + 12046.26REPWH + U_1$ were found to be the best fitted model for prediction of hectareage of wheat crop in Gujarat state.

KEY WORDS : Hectareage, Nerlov's model, Risk factors, Correlation co-efficients, Wheat crop

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