Research Paper

Determine optimal crop planning under conditions of water risk in Namakkal district of Tamil Nadu

■ B. KAVITHA, M. UMA GOWRI AND R. SANGEETHA

See end of the paper for authors' affiliations

Correspondence to :
B. KAVITHA
PGP College of Agricultural Sciences, NAMAKKAL (T.N.) INDIA
Email: kavisribala@gmail.com

ABSTRACT : Water is a critical input for success of agriculture and its ever widening technology creation. Water scarcity as a risk has always been a part of agriculture and farm business. Hence, management of available irrigation water assumes great importance in the field of agriculture. The present study was attempted in Namakkal district of Tamil Nadu, India, because of the availability of exclusive dry farms. In Namakkal district, blocks namely Namakkal, Mohanur, Pudhuchatram, Tiruchengode for each risky crop were purposively selected on the basis of area, production and productivity of those crops. Linear programming model was applied to derive optimal crop plan for the sample farms under water stress conditions. Optimization of crop portfolio for the selected farm is a type of risk management strategy. The decline in gross cropped area in Namakkal block would imply relatively less pressure on land that would again indicate the sign of bringing in sustainability of the productive capacity of the land. Even though the decline trend in net income, it showed that the resources which were used in the cultivation as efficiency factor in Pudhuchatram. The results indicated that water and other resources were used efficiently to get optimum pattern in the cultivation of different crops.

KEY WORDS : Water stress, Resource use, Farm size, Linear programming, Optimization

HOW TO CITE THIS PAPER : Kavitha, B., Uma Gowri, M. and Sangeetha, R. (2015). Determine optimal crop planning under conditions of water risk in Namakkal district of Tamil Nadu. *Internat. Res. J. Agric. Eco. & Stat.,* **6** (2) : 242-248.