

TECHNICAL SESSION-5: WORK ENVIRONMENT, PRODUCTIVITY AND INCENTIVES

Chair: Prof. Dr. Nasir Nadeem, MNS University of Agriculture, Multan

Paper Title: Supply Responses of Major Crops of Punjab, Pakistan: Translog Profit Function Approach
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Abstract: This paper estimates elasticities for wheat, cotton, rice and sugarcane using farm level data from Punjab using a translog profit function approach. The latter is a more flexible alternative to traditional Cobb-Douglas or CES production functions, thereby providing more robust estimates. A key novelty of this paper is that it explicitly takes into account variation in weather patterns, as measured by mean temperature and precipitation during the crops' different phenological stages on output and profitability. Our estimates suggest a complementarity between in- puts in particular seed and fertiliser for all crops studied and a net substitution effect between variable inputs and fixed inputs(land). Our estimates further indicate that for wheat, rice and cotton increase in temperature and precipitation during harvesting leads to a decrease in farmers profit while the contrary is true for sugarcane.