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## **The Utility of Seasonal Climate Forecasts: Understanding Argentine Farmers' Attribute Priorities and Trade-Offs**

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A distinct El Niño – Southern Oscillation (ENSO) signal and its impacts have been confirmed in the Argentine Pampas, and precipitation variability is currently recognized as the region's most marked ENSO-driven influence. In the Pampas, precipitation is also a major limiting factor for agricultural production given spatial differences in soil water storage capacities and the region's relatively minimal use of irrigation. Seasonal climate forecasts that provide advanced knowledge of expected ENSO-driven precipitation anomalies may benefit farm management decision-making by helping to either mitigate potentially negative consequences or to take advantage of potentially positive influences. To be useful and applicable, however, these forecasts must suit the decisions that they are meant to inform. In this research, a case study is presented that investigates how farmers in the Pampas prioritize and trade off specific attributes of a seasonal climate forecast (i.e., mode of distribution, spatial resolution, lead time, and forecast performance) when judging its utility. A conjoint analysis evaluation decomposes holistic evaluations of forecasts into the part-worth utilities associated with their different attributes. Part-worth utilities combine to reveal the structure of farmers' forecast utility preferences – a model of the decision-making process. Utility preference structures are analyzed to compute the importance value of each attribute and to determine the trade-offs that farmers find acceptable between different attributes. Analysis indicates that, on average, spatial resolution is the most influential attribute in determining climate forecast utility. Attribute trade-off values suggest that advances in spatial resolution, forecast performance, and/or product dissemination via the Internet offer the greatest potential for increasing the utility of future seasonal climate forecasts for farmers in the Pampas.