



An International Center
for Soil Fertility and
Agricultural Development

Success Story

Development of an Information and Decision Support System for the Agricultural Sector (in Uruguay and Argentina)

During the past two decades, Latin America has experienced a decrease in agricultural growth and an increase in rural poverty. In fact, the United Nation's Economic Commission for Latin America and the Caribbean estimated that in the mid-1990s 53% of the rural households in the region had incomes that were less than the cost of a basic basket of food. One of the clearest pathways to revert this regressing process is to ensure the sustainable increase in the productivity of the existing agricultural systems in ways that will ensure enhanced availability of food and fiber, while preserving a healthy environment.

IFDC is responding to these challenges in southern South America by developing and establishing Information and Decision Support Systems (IDSSs). These IDSSs combine the use of modern information tools (remote sensing, simulation models, geographic information systems, probabilistic seasonal climate forecasts) with existing databases to generate products that can be easily understood and readily used to assist the planning and decision-making of stakeholders acting in the public and private agricultural sectors of the region. For example, the IDSS that IFDC is developing with the National Agricultural Research Institute (INIA) of Uruguay is being used to assist governmental planning agencies to identify the best land uses for different areas, issue drought/flood alerts, identify regions with highest needs for receiving aid in extreme events such as droughts, develop crop production forecasts, and assess production risks for establishing agricultural insurance programs. IFDC is also helping farmer cooperatives and NGOs to reduce the vulnerability of their production systems to the huge climate variability typically existing in the region. This is accomplished by identifying farm management practices that are best adapted to the most likely climate conditions expected for the following season, considering probabilistic climate outlooks (based, for example, on El Niño conditions and forecasts). An important feature of the work that IFDC is establishing using the IDSS approach is that it allows for the use of the vast amount of information that is typically available in developing countries, generated by the national institutes. The work is also contributing to building the human capacity in the region since national scientists are being trained in the development and improvement of IDSSs. Moreover, the methods and tools that IFDC is developing in the South American work are being used to begin establishing similar IDSSs in other developing countries.

