

Rice production in Uruguay: farmer-industry-research integration

G. Zorrilla de San Martín

Rice production has been growing steadily in Uruguay for more than 30 years. A continuous increase in area and yield allowed the country to reach 1 million tons of paddy rice in 1997, and forecasts estimated 1.1 million t for 1999. Rice is now the country's most important crop and it ranks third among export goods, behind beef and wool. Rice has become a key product in the Uruguayan economy.

With more than 90% of its production exported, the Uruguayan rice sector has had to develop in a mostly closed world rice market, with many commercial barriers and highly subsidized surpluses entering international commerce, which accounts for less than 5% of the world harvest.

In this environment, Uruguayan rice production has thrived without any kind of subsidy or direct government intervention in commercialization. The development of strong farmers' and industry associations with close relationships with research institutions and the government made this possible.

This chapter describes the structure and organization of the rice sector in Uruguay, and the key factors that explain its success.

Uruguay is situated between 30° and 35° S latitude and is bordered by Brazil and Argentina. Its rice production has been growing steadily for more than 30 years. A continuous increase in area and yield allowed the country to reach 1 million tons of paddy rice in 1997, and forecasts estimated 1.1 million t for 1999 (Fig. 1).

Rice production started in 1930 in the Merin Lagoon Basin in the eastern part of the country, and area has been growing continuously since then. In the past 20 years, it expanded to the north and crossed the Brazilian border.

Rice farmers are characterized by large commercial and high-investment operations, with modern machinery and equipment (Table 1). Industry is concentrated in a few big milling companies having the latest milling technologies (Fig. 2).

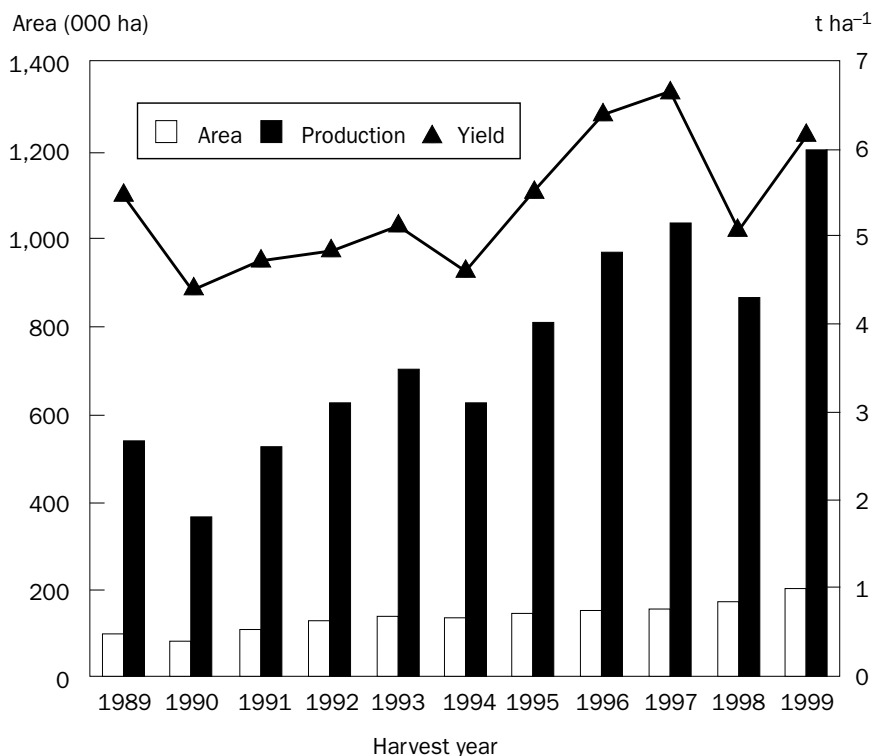


Fig. 1. Uruguayan rice production statistics.

Table 1. Evolution of the number of rice farmers and area per farmer in Uruguay.

Crop year	Farmers (no.)	ha per farmer
1985-86	429	200
1986-87	430	194
1987-88	424	192
1988-89	514	189
1989-90	528	156
1990-91	632	174
1991-92	783	162
1992-93	745	182
1993-94	722	186
1994-95	729	201
1995-96	750	200
1996-97	669	232

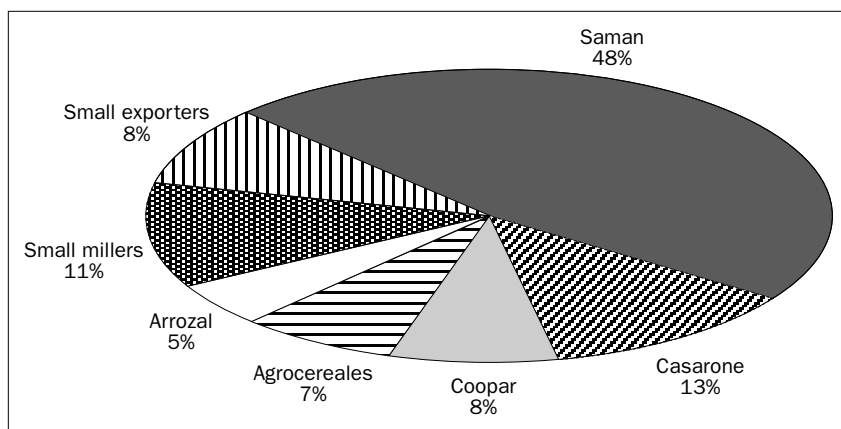


Fig. 2. Market shares of millers and exporters in Uruguay, 1997.

More than 90% of annual production is for export, Brazil being the main destination, followed by Peru, Senegal, Iran, and many other smaller markets. In 1997, Uruguay ranked sixth worldwide as a rice exporter, and rice became one of the most important products of Uruguay's economy in the past 10 years.

This development occurred in a mostly closed world rice market, with commercial barriers on the part of many potential buyers (Europe, Japan, etc.) and highly subsidized surpluses entering international commerce, which accounts for less than 5% of the world harvest.

In this environment, Uruguayan rice production has thrived without any kind of subsidy, or direct government intervention in commercialization. The development of strong farmers' and industry associations with close relationships with research institutions and the government is considered to be an important factor explaining this success.

Rice growers have a national association (Asociación de Cultivadores de Arroz), founded in 1948, and industry has been organized similarly for more than 50 years (Gremial de Molinos Arroceros). Both groups have developed strong relationships, allowing them to have common objectives. Almost all growers produce rice under contract with the milling company, and there are standards for premiums or discounts depending on the quality accepted by farmers and millers.

Both entities operate under an agreement to calculate an average price for rice, taking into account the real value obtained from total exports and the internal market.

This good relationship has had a large impact on local rice research and the application of new technologies. Most agricultural research in Uruguay is concentrated in the different research programs of the Instituto Nacional de Investigación Agropecuaria (INIA). One of them is the Rice Research Program, which has 13 scientists and conducts experiments all over the country. Since local research started more than 30 years ago, growers and industry have been tightly linked in discussing and defining short- and long-term goals for technology development.

They have also been active in transferring new technologies such as varieties and management strategies coming from the Rice Research Program. A good example is the evolution of cultivar area in the past 10 years (Fig. 3). Until 1990, more the 80% of the total rice area in Uruguay was planted with the old American variety Bluebelle. Now, it has less than 3% of the area, being replaced first by El Paso 144, an indica cultivar released by the local breeding project in 1987, and then by INIA Tacuarí, an American variety released by INIA in 1993. Both cultivars yield 20% more than Bluebelle.

Overall, this farmer-industry-research integration is one of the key factors that has supported the steady trend of increasing area and yield shown by Uruguay since 1970 (Fig. 4).

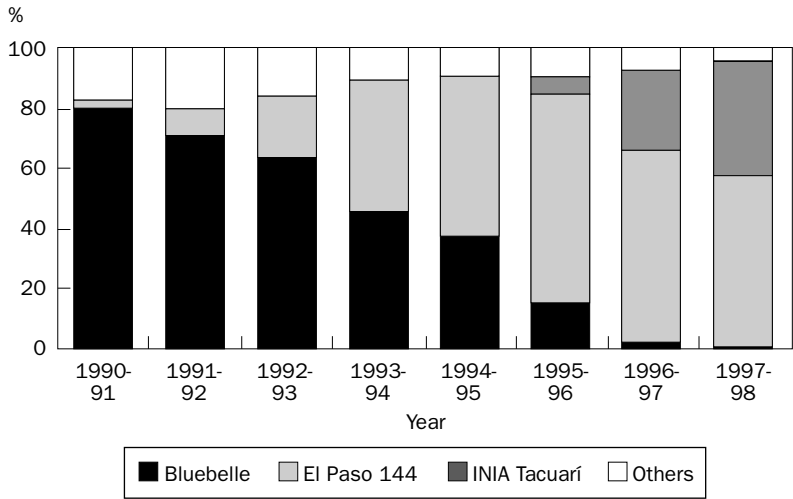


Fig. 3. Evolution of cultivar changes in Uruguay.

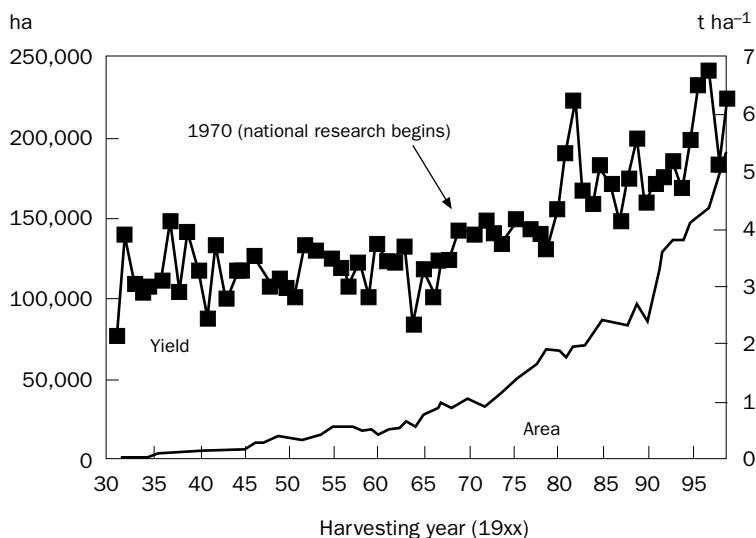


Fig. 4. Impact of farmer-industry-research integration in Uruguay.

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Author's address: Instituto Nacional de Investigación Agropecuaria (INIA), Km 281, Ruta 8, Treinta y Tres, Uruguay.

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