

## Five do well in Senegal

Irrigated rice farmers in the Senegal River Valley now have a wider choice of improved rice varieties thanks to collaboration between the Africa Rice Center and its NARES partners in Senegal (ISRA and SAED).

Choice is important for these farmers because more than 70 percent of the total 37,000 hectares of irrigated rice area cultivated in the region has comprised just three existing Sahel varieties making lack of genetic diversity something of a concern.

In 2005, the national rice release committee in Senegal officially released five (5) new varieties for use by rice farmers in the Senegal River Valley where irrigation is the only option for productive agriculture but there is a potential for rice yields averaging up to 10 tonnes per hectare. These new varieties are: **Sahel 134** (IR 31851-96-2-3-2-1), **Sahel 159** (IR 32307-107-3-2-2), **Sahel 208** (ITA 344), **Sahel 209** (Tox 3241-22-3-3-1) and **Sahel 210** (ECIA 31-6066).

Following initial selection of the varieties at WARDA Sahel research station in Saint-Louis, Senegal, the Senegalese agricultural research institute (ISRA) undertook intensive multilocation tests in collaboration with the national irrigation development authority (SAED) to assess the performance of the varieties in a range of irrigated rice production environments in the Senegal River Valley. The official report of the tests was then presented to the national rice varietal release committee, which officially released the varieties to the farming population in 2005.

These varieties will further increase genetic diversity and offer varietal choices in addition to the three Sahel varieties that now occupy more than 20,000 ha. Eventually, it is planned that these five varieties will also be available for use by Mauritanian farmers who cultivate more than 23,000 hectares of irrigated rice, north of the Senegal River valley. The potential there for increasing rice yields and profits is perhaps even greater than in Senegal. The agricultural sector in Mauritania employs about 65% of the labor force and accounts for approximately 25% of GDP.

Rice is a staple food in Mauritania where the local cuisine is based on rice and lamb or goat. Paddy rice – grown almost exclusively on irrigated land in the fertile Senegal River Valley – has expanded considerably in recent years and now accounts for about 50% of cereal output. However, local rice production doesn't meet the country's demand since yields are generally far below the potential.

WARDA, in collaboration with various national partners – CNRADA, SONADER, AGETA and farmers' organizations – introduced the integrated crop management (ICM) approach with great success into irrigated rice-based systems in Mauritania with support from the World Bank, the Government of Mauritania, the UK Department for International

Development (DFID) and the Japanese International Cooperation Agency (JICA).

By adapting with local farmers the ICM solutions developed elsewhere in West Africa, WARDA has introduced a basket of ICM options for improved fertilizer, weed, and water management, improved varieties and efficient post-harvest technologies as well as decision-making tools, such as optimum sowing date, seeding and fertilizer rates and timing of fertilizer application, based on crop modeling research

Integrated crop management and improved varieties are showing farmers the way to top yields

**New varieties of rice for irrigated cultivation have the potential to yield up to 10 tonnes per hectare in the Senegal River Valley. Thanks to an Africa Rice Center collaboration with a number of overseas donors and partnership with the Government of Mauritania the underlying potential north of the Senegal River can now be exploited more fully with the new varieties and integrated crop management methods tailor-made for the local conditions.**

