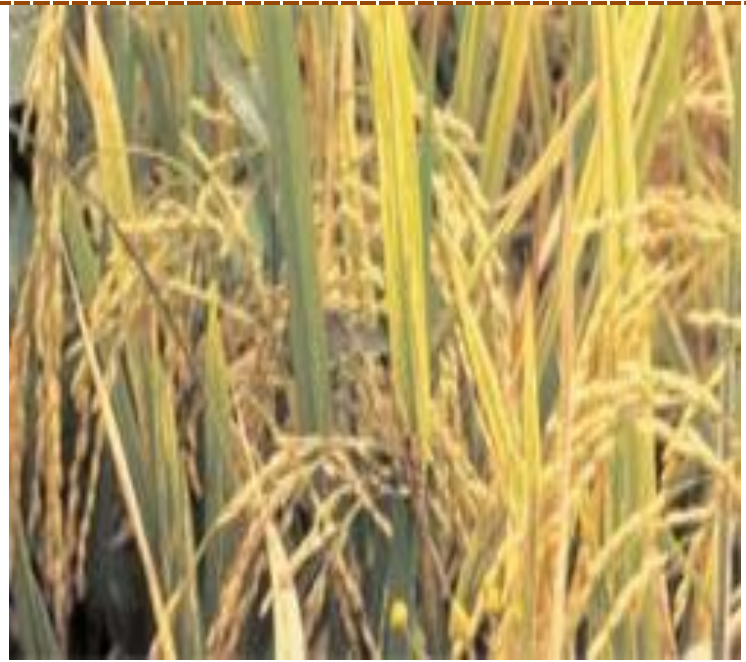


Evaluating and Deploying Varieties of Rice with Yellow Mottle Virus Resistant Gene in West Africa

Eliminating the serious challenges posed by rice yellow mottle virus should strengthen the productivity of irrigated rice in West Africa.

Rice is the most important cereal staple crop in West Africa. During the past three decades there has been a steady growth in the demand for the crop leading to massive imports of the commodity to fill the gap. An exponential increase in domestic production of rice is needed to fill the gap in the demand of the crop. However, irrigated rice production in West Africa is continually challenged by the severe infestation of the crop by rice yellow mottle virus (RYMV) which affects photosynthetic activity, affecting photosynthate assimilation, hence retarding growth and diminishing yields. This virus, first identified in Kenya, has become a menace in the production of rice in West Africa.

This project is promoting the adaptation and use of RYMV resistant varieties of rice in the West Africa region. Irrigated rice varieties with the resistance gene *rymv1* were developed via molecular marker-assisted variety selection in a partnership involving the African Rice Center and IRD of France. These varieties are being up-scaled and out-scaled by this CORAF/WECARD project with the goal of enhancing the sustainability of the region's rice production.



Rice variety sensitive to RYMV

Main Beneficiaries

The rice farmers of the region are the ultimate beneficiaries of this project. They will benefit from increased productivity of their crop. Traders and consumers of rice will benefit from enhanced quality of rice. The participating regional scientists will benefit from basic molecular marking techniques needed in their breeding programs.

Regional Benefits

The selected RYMV resistant varieties of rice will be distributed through regional seed markets to rice producing countries of the region.

Partners

This CAADP-aligned project is funded by USAID, and is coordinated by CORAF/WECARD. The implementing partners are: Centre National de Recherche Agronomique, Côte d'Ivoire; Institut de l'Environnement et de Recherche Agricole du Burkina Faso; Council for Scientific and Industrial research of Ghana; Sierra Leone Agricultural Institute; Institut de Recherche Agronomique du Niger; and Agricultural Research Council of Nigeria.

Components	Outputs	Outcome	Impact	
<p style="text-align: center;">1</p> <p style="text-align: center;">Technology Adaptation</p>	<ul style="list-style-type: none"> • Rice epidemiological challenges for each country identified • Rice varieties with rymv1 gene identified from existing germplasm. • High yielding irrigated rice with rymv1 selected for each country 	<p>Outcome 1</p> <p>Increased use of RYMV resistant varieties in irrigated rice production</p>	<p style="text-align: center;">Increased and sustained rice productivity in West Africa</p>	
<p style="text-align: center;">2</p> <p style="text-align: center;">Capacity Strengthening</p>	<ul style="list-style-type: none"> • Capacity of NARS to produce requisite quantities and qualities of RYMV resistant rice varieties strengthened • Infrastructure for RYMV resistant rice varieties production developed • Farmers' awareness on the usefulness of RYMV resistant rice varieties strengthened • Capacity of participating scientists in molecular marker-assisted selection of rice strengthened 	<p>Outcome 3</p> <p>Tools and best practices in molecular marker assisted selection assimilated by scientists and rice producers of the region</p>		<p style="text-align: center;">Increased income and enhanced livelihoods of rice producers in the region</p>
<p style="text-align: center;">3</p> <p style="text-align: center;">Seed production</p>	<ul style="list-style-type: none"> • Rice seed producers identified for each country • SME seed entrepreneurs identified for the production and distribution of RYMV resistant rice varieties. • Rice seeds for initial distribution to SMEs produced 	<p>Outcome 2</p> <p>Increased access of farmers to RYMV resistant rice varieties</p> <p>Outcome 2</p> <p>Increased availability of RYMV resistant rice varieties</p>		

For more information

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