



International
Rice Research
Institute

Hybrid Rice Development Consortium

Revitalizing partnerships for better hybrids

Hybrid rice has the potential to produce up to 30% more yield than the best-performing modern inbred varieties, making it a significant and important option to help sustain the rice supply and keep prices low. However, breeding hybrid rice is not as straightforward as breeding inbred rice varieties, as the approach for hybrid rice requires a special set of breeding lines and technical know-how.

The Hybrid Rice Development Consortium (HRDC) was established through the International Rice Research Institute (IRRI) in 2008 to intensify hybrid rice research and market-oriented product delivery across the globe while providing services and support to its member organizations. From only 39 public and private organizations that became members in 2008, the number is now at 72 and continues to grow.

The HRDC-IRRI partnership enhances the steady stream of innovation and improves product accessibility and eventual commercial use by rice farmers.

Objectives of the HRDC

The overarching goal of the HRDC is to make better hybrids more widely available to rice farmers and, through this, contribute to raising rice yield. This makes rice production more efficient and sustainable and keeps rice affordable for billions of people who depend on it as a staple food. Hosted by IRRI, the HRDC has three major objectives:

- To support research on developing parental lines and hybrids;
- To provide better information on the performance of hybrids and develop best management practices; and
- To support information sharing, public awareness, and capacity building.

Benefits of membership

National agricultural research and extension systems and other public organizations engaged in hybrid rice research and development have joined the HRDC, contributing their experiences and expertise.

On average, the HRDC is able to develop around 12,000 breeding lines and test 3,000–4,000 hybrids per season. These breeding lines and hybrids are regularly

shared with HRDC members. In 2008, about 1,200 lines were shared, increasing to about 4,900 in 2015.

The breeding lines shared with members serve as new materials, such as hybrid rice parents, for the members' own hybrid rice research and development programs. As a result, rice farmers benefit from quicker access to hybrid rice-based technologies such as better hybrids, good quality seeds, knowledge, and services from the public and private sectors.

“Increased germplasm exchange with the HRDC has enabled us to produce hybrids with higher yield and good grain quality.”

—Dr Edgar Torres, plant breeder at the International Center for Tropical Agriculture (CIAT) and the Latin American Fund for Irrigated Rice (FLAR)

“Hybrid rice has been playing a critical role in solving the food problem of China, thus making China the largest food self-sufficient country... I firmly believe that hybrid rice, relying on scientific and technological advances, and the efforts from all other aspects, particularly from FAO and IRRI, will have a very good prospect for commercial production and continue to play a key role in ensuring future food security worldwide in the new century.”

—Dr Yuan Longping, *Father of Hybrid Rice*

Becoming an HRDC member

Public and private sector organizations or companies interested in hybrid rice development are invited to become a member of the HRDC. Four options are available for membership: Platinum, Gold, Silver, and Green. The last option (Green) is applicable only to public sector organizations, which are not required to pay any membership fee but could organize multilocation replicated yield trials in one or two sites within their country as a form of contribution. They could also share genetic materials of hybrid rice varieties with IRRI to strengthen the pool of existing genetic materials available. Private sector organizations who wish to join may choose one of three available options—Platinum, Gold, or Silver. Membership fees are subject to adjustment. Interested companies may get in touch with the HRDC contacts or visit the HRDC website (<http://hrdc.irri.org/>).

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