Rice Today

The rice man of Africa

by Savitri Mohapatra

Growing up in Sierra Leone, rice researcher Monty Jones was encouraged to become a priest.

It's lucky for Africa he didn't.

With his gentle smile and calm demeanor, Dr. Monty Jones doesn't look like the proverbial wild-haired scientist. But there is no doubt that the New Rice for Africa (NERICA) breakthrough made by him, in partnership with national and international scientists, has changed forever the way the world looks at African rice and rice research.

Going boldly where few scientists had gone before, Dr. Jones and his team succeeded for the first time in producing fertile progenies—a mass of undifferentiated cells that can be used to grow genetically identical copies of plants with desirable characteristics—by experimenting with coconut milk as a medium.

After the excitement of research, it is Dr. Jones happy with his present work as PAPA secretary? “I must confess I miss research,” he says. “But I don't regret the decision I took, because now I am continuing to do what I like very much—facilitating agricultural research at the continental level.”

He was happy that his legacy continues to live on at WARDA, where Dr. Moussa Sié, in close partnership with national program scientists, has recently developed NERICA varieties for lowlands. To honor Dr. Jones, WARDA recently launched an annual “Dr. Monty Jones Lecture” and presented him with a plaque recognizing his “outstanding achievement in rice research and exemplary contribution to the agricultural map of our continent by his remarkable contribution.”

Whatever he did, it worked.

Dr. Jones has demonstrated that it is possible to reshape the agricultural map of our continent through the African creative genius. Dr. Jones may not look like a stereotypical scientist, but perhaps he possesses some of the eccentricity that seems to go hand in hand with scientific greatness. At the WARDA ceremony, he confessed that he used to speak to his NERICA plants, praising them for their performance.

He had several “eureka” moments.

In the 1970s, Dr. Jones received a fellowship from the Food and Agriculture Organization of the United Nations, allowing him to move to the U.K. to study at Birmingham University. There, he received a master's degree (1979) and a doctorate in plant biology (1983). In 2005, in recognition of his work, the university conferred upon him the honorary title of Doctor of Science. He said that the 1985 “rice riots” in Sierra Leone, catalyzed by a shortage of rice, strengthened his resolve to become a rice researcher.

Before joining WARDa in 1991, Dr. Jones worked on managing rice in the Rice Research Project in Rokupa in his home country. There, he first saw farmers growing African rice and he became fascinated with its hardiness—a fascination that sowed the seeds for the NERICA development.

Dr. Jones recalls that when he proposed a program to the WARDa board to cross the African and Asian rice varieties in 1991, some members thought it was “too ambitious.” However, he eventually received the go ahead and the rest is history.

He said that even now he remembers very vividly the excitement he felt when he first saw that seven out of the 48 crosses he had made had produced a few fertile plants. “Some even had 98–100% fertility,” he recalls.

From that time onward, Dr. Jones said he had several such “eureka” moments. He was one by one the desirable characteristics of the two parents that had been transferred to the progenies. Several international rice scientists could not believe it when they told him that a few NERICA lines had more than 300 grains per panicle, compared with the Asian rice varieties that have on average 100 grains. Dr. Jones and his team continued to breasting of ground, as they learned to use anther culture—a technique that allows breeders to obtain pure breeding lines without the numerous rounds of backcrossing usually needed— to produce highly fertile lines in around 2 years. This is the third time required for conventional selection.

“There was often an element of luck in our research,” he says, modestly referring to their success in producing callus—a mass of undifferentiated cells that can be used to grow genetically identical copies of plants with desirable characteristics.