

## **GOLDEN RICE SET TO BE AN UPMARKET HEALTH FOOD NOT FOOD FOR THE POOR : New developments in Syngenta and the Humanitarian Board<sup>i</sup>**

**Suman Sahai**

*Syngenta and the Humanitarian Board have recently moved to take steps that will give it complete control over Golden Rice. Gone, apparently are the pious intentions of delivering this rice to the world's poor. It looks like there is a high-end nutraceutical in the making, a golden health food for those who can afford these things.*

The creators of golden rice are Ingo Potrykus of the Technical University, Zurich and Peter Beyer of the University of Freiburg. The Rockefeller Foundation financed a large part of the research effort spanning ten years and costing many million dollars. As soon as it was announced that a nutritionally enhanced 'Golden Rice' had been created, containing pro Vitamin A that would help those suffering from chronic vitamin A deficiency leading to night blindness, came the news that this rice may never get a chance to reach the poor. The product was found to be shackled in so many patents (over 70, big and small) that if the license fees for the use of all the patents had to be paid, the Golden Rice supposedly bred to ameliorate vitamin A deficiency and prevent night blindness, would price itself out of the market; certainly any markets that the poor could access. Further developments in Golden Rice were watched closely. This was promoted as a product developed with the purpose of targeting a widespread problem of malnutrition. It became a test case to see how far the Life Science corporations would go to defend their patents and block research aimed at helping the poor.

The Agbiotechnology industry realized it had a full blown public relations crisis that a food allegedly developed to address the food and nutritional needs of the poor may never reach them if some solution was not found for the myriad patents holding Golden Rice back. GM baiters set up a chorus of 'I told you so', that the life science industry never intended to solve food and nutrition problems, that the corporations owned everything through their patents and money making was their primary, if not only goal. The 70 patents on Golden Rice proved that point. The GM industry, reeling under bad press and outright consumer rejection in many parts of the world, had to do some quick thinking not to look like the monstrous exploiters they were accused of being, holding back Golden Rice from those who would go blind without it.

This product was after all their magnificent Trojan horse, breaching the wall of resistance against GM foods. Here was a product developed for the express goal of helping the poor and underprivileged and saving children from blindness and a bleak future. This product could not possibly be allowed to look bad. So Astra Zeneca stepped in in the form of savior and made arrangements that Golden Rice could be further developed. Donations of "free licenses for humanitarian use" for intellectual property rights involved in the basic technology were negotiated and the inventors of Golden Rice reached an agreement with Astra Zeneca and Greenovation, a Freiburg based Biotechnology Company.

Astra Zeneca was subsequently subsumed under Syngenta in the kind of mergers that has typified the consolidation of the large life science corporations. The Syngenta Company now controlled access to Golden Rice. To keep public criticism at bay, Syngenta set up a Humanitarian Board and under it the "Humanitarian Golden Rice Project" to negotiate access for developing countries. This enabled collaboration with public rice research institutions in developing countries with the "freedom-to-operate" so that they could develop locally adapted Golden Rice varieties.

The Humanitarian Board had originally declared that countries would do their own research using the genetic material of Golden Rice and that the locally developed varieties would be made available to small farmers free of charge. These varieties would become their property and they could use and reuse seed for further plantings according to prevailing custom. Big farmers on the other hand, would be able to cultivate Golden Rice only after paying a license fee. The deal was not unfair. Syngenta

would make its money in western markets selling Golden Rice as a health food and allow small farmers to benefit from it in the developing countries. This model made the industry look good, not like avaricious monsters and Syngenta did not really lose money.

Now suddenly comes the big turnaround. Syngenta appears to have decided that since the furor over the 70 patents has died down and the public opprobrium over the industry control over Golden Rice seemed to have receded into the background, they could establish their claim over the product again. In the meantime research on Golden Rice had advanced and it was acquiring more the shape of a lucrative, money-spinning product than the laboratory exercise it was a few years ago.

To lay its claim to Golden Rice, Syngenta has quietly started a process by which it has acquired complete control over the way in which the genetic material of Golden Rice can be used by researchers, ignoring the earlier conditions set up by the Humanitarian Board. Syngenta can now allow or deny access to researchers at will. Rather than the open research agreements that had been agreed upon earlier with the South, the Humanitarian Board has laid down new conditions under which Golden Rice will be available for breeding work to researchers in developing countries. The old contracts between the Board and the researchers have been revoked and new ones put in place. All users including the International Rice Research Institute (IRRI) in the Philippines and all research partners in India, like the Directorate of Rice Research (DRR), the Indian Agricultural Research Institute (IARI), Tamil Nadu Agricultural University and Delhi University have had to sign the new contract and agree to abide by the new conditions.

Syngenta has laid down stringent conditions, which do not allow researcher partners the freedom to operate, as was negotiated. Research partners for example, have now lost the flexibility to design their research according to the methods established in their laboratories; they are allowed to do genetic transformation only by using the Agrobacterium method. The new contract demands that only those Golden Rice lines that have been transformed by Syngenta can be used further by breeders/users. The Humanitarian Board has demanded in addition, that all existing transgenic lines developed individually by the different research laboratories so far have to be destroyed. Regrettably, partner institutions have complied with this!

Syngenta has also withdrawn all transformed rice lines from research partners except one, a japonica variety called *Oryza sativa var krukoidee*. This is the only line that will be made available to developing country users for their Golden Rice breeding programs. These new developments are designed to establish Syngenta's absolute ownership of Golden Rice, a step likely to lead to patent claims.

The final element of corporate control over Golden Rice comes in the person of Gerard Barry who has been appointed by Syngenta as the Golden Rice Coordinator at IRRI. Mr. Barry's major responsibility at IRRI is to work with plant breeders, biotechnologists, *intellectual property rights specialists*, and biosafety and regulatory agencies in Asian countries *'to facilitate the development and deployment'* of the genetically engineered Golden Rice originally developed by the Technical University, Zurich. Prior to moving to IRRI, Barry had been Director of Research, Production and Technical Cooperation at Monsanto.

IRRI's involvement in the Golden Rice project and Barry's appointment to oversee it have both been controversial. A former Monsanto executive now has administrative control of the inter-governmental Golden Rice research project. It is ironic that the CGIAR, which claims to have more than 8,500 scientific staff on its rolls, could find no scientist of distinction to coordinate the Golden Rice program, if such coordination were indeed required and had to seek the help of Monsanto, for managing the Golden Rice research project! To add insult to injury, the well-heeled IRRI, has made an application for the somewhat modest sum of \$ 400,000 to conduct the nutritional analysis of rice. The grant is being negotiated and administered by Mr. Barry.

Mr. Barry's new assignment to manage Intellectual Property Rights on Golden Rice would appear to have set the clock back more or less to where it was when the charade over the Humanitarian Board and the pro-poor nature of Golden Rice was played out. Mr. Barry's charge is to push for the adoption of patented Golden Rice for those in developing countries who can afford it. The poor blind children that were held up as the reason why Golden Rice was being developed do not seem to be part of the discourse anymore. The Life Science Industry seems to have come full circle.

---

<sup>i</sup> Sahai, S., (2004) Economic & Political Weekly, Vol. XXXIX No. 42, Oct. 16-22  
pp. 4612-4613