

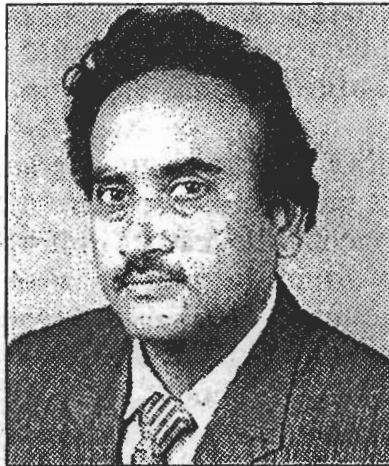
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## World's first genetically engineered jute plant

**I**NTERNATIONAL Jute Organisation (IJO) is in the process of implementing biotechnological approach for improving jute varieties and in this regard a timely discovery has been made by Dr. Rafiqul Islam Khan, a Bangladeshi scientist, while serving at a research organisation in Australia, an IJO press release said. Dr. Khan has developed world's first genetically engineered jute plant and an efficient method for routine introduction of useful genes into jute. He uses a special kind of bacteria to insert genes into leaf tissues of young jute seedlings and then develops genetically engineered plants from those leaf tissues by hormone treatment. He has served the CSIRO (Australia) for the last seven years where he has developed genetically engineered plants with superior nutritional quality and resistance

to viruses. Apart from Dr. Khan's initiatives, several research groups in Bangladesh, India, England and the USA had been working to develop this long-desired genetic engineering technique for jute. Dr. Khan as a UNDP's consultant initiated the work to develop genetic engineering technique for jute in 1993 at the Bangladesh Atomic Energy Commission and helped in developing a genetic engineering



Dr. Rafiqul Islam Khan

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lab there. In 1995 the IJO approved a project on jute biotechnology, based on a proposal by Dr. Khan involving himself and Dr. Serajul Islam of the Bangladesh Atomic Energy Commission. Ultimately, it was Dr. Rafiqul Islam Khan, whose research at the Canberra Laboratory in Australia made this breakthrough possible in developing genetic engineering technique for jute. This is the first of its kind

in jute research. Genetic engineering techniques for many crops including rice, wheat, barley, maize, cotton, pea, potato, tomato, tobacco, soyabean and chickpea have been developed and used for insertion of desirable characters in the advanced laboratories of foreign countries.

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varieties will now be possible, which were not otherwise possible by conventional breeding techniques.

Dr. Khan has taken steps to procure genes for insect and disease resistance from advanced biotechnology groups in order to develop insect and disease resistant jute varieties.

One of the main objectives of this genetic engineering project is to reduce the cost of production of jute by minimising the use of pesticides in the field. In future, improvement of the fibre quality of jute or making high yielding varieties of jute may be attained through the application of this genetic engineering technique. □