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with the bacillus thuringiensis toxin gene, Bt, or resistance gene(s) from wild type species, or viral coat proteins may protect from pests and pathogens and reduce yield loss significantly.

Wheat production, which is constrained by drought in upland areas and salinity and flooding in coastal areas, may be increased following similar strategy for rice. Jute, the most important fibre crop of Bangladesh, is damaged by blight, insects, and flood. The germplasm depository (gene bank) at Bangladesh Jute Research Institute (BJRI) has a collection of 5935 accessions of 53 species of fibre plants. Some of these germplasms have useful traits as resistance against diseases and pests, which may be exploited for improvement of commercially important varieties.

In Australia and France transgenic plants with reduced lignin content have been produced by manipulating the enzymes of the lignin pathway. If this can be done in jute, the quality of jute fabric would be enhanced so much that jute will be in a position to compete with cotton. Harnessing the rapid growth of naturally fast-growing jute and its cultivation in the winter through genetic manipulation may lead to diversified and eco-friendly use of jute in different industries such as paper. It would lead to use of jute as better quality geo-textile, substitute for wood and woodchips, as an important gradient in the garment industry and finally, as a potential source of bio-fuel.

For most Bangladeshis, diet diversity is the major problem. Rice occupies much of the total area hindering expansion of other crops.

As a way to overcome the general deficit in protein-based calorie uptake, nutritionists of Bangladesh often emphasise on inclusion of pulse in our daily diet. The major problem with pulse (lentils) production in our country is fungal infections, which affect all available native varieties. Identification and introduction of resistance genes into lentil varieties may reduce yield loss due to fungal infection.

Eggplant, another important vegetable in Bangladesh, which is grown by an estimated 8 million farmers, suffers from insect (borers) damages by up to 70%, pushing the farmers to an excessive use of pesticide (up to 250300 sprays per year). This practice has immediate, as well as long-term, harmful