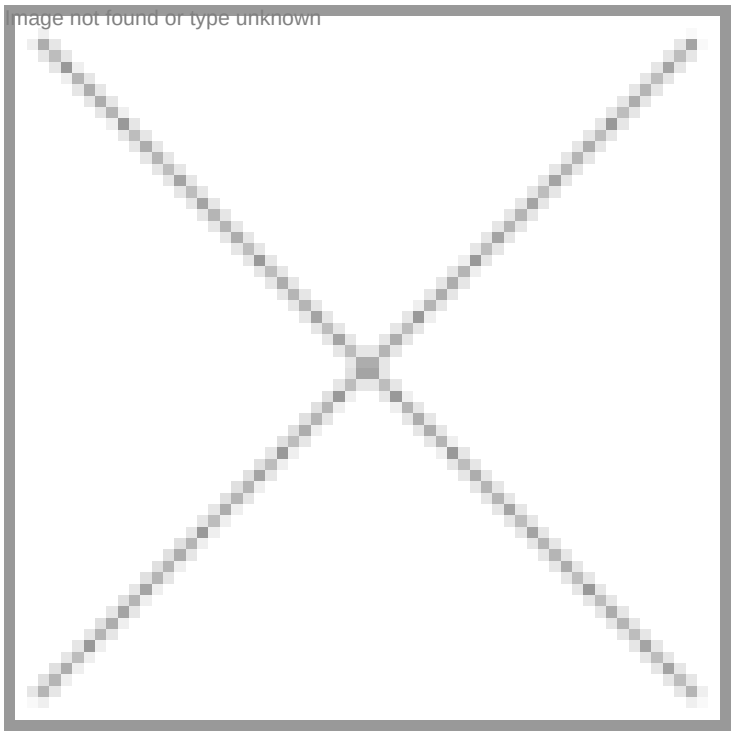
BioSpectrum the business of Bio & Health Sciences

Cattle GM vaccine from IISc

11 April 2003 | News

Image not found or type unknown



A team of scientists at Indian Institute of Science, Bangalore has produced pigeonpea plants expressing the hemagglutinin protein of rinderpest virus that could offer a new route for vaccination of cattle. The team lead by Prof. G Lakshmi Sita, plant biotechnologist, has produced plants expressing hemagglutinin protein of rinderpest virus at 0.49 percent of the total soluble protein.

The team has also investigated production of the antigens in peanuts. "We have generated transgenic peanut plants expressing hemagglutinin protein of RPV and studied the induction of immune responses in cattle following oral feeding with transgenic leaves expressing hemagglutinin protein with oral adjuvant," says Prof. Lakshmi Sita.

She noted that GM vaccine could be applied directly to the animals. "It can be fed to the animals, provided we grow the same in confined areas separated from the normal crop grown for human consumption." During the last few years the team has developed transgenic technology and introduced these vaccine genes into peanut, pigeonpea and the fodder crop alfalfa, without much funding. "We have demonstrated the potential of the technology and if there is sufficient interest, the project can be further pursued for commercialization, " she added.