

# Monsanto's Bt Cotton Kills the Soil as Well as Farmers

By [Global Research](#)

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Theme: [Biotechnology and GMO](#)

Biosafety refers to ensuring that GMO's do not harm the environment or health.

The soil, its fertility, and the organisms which maintain the fertility of soil are a vital aspect of the environment, especially in the context of food and agricultural production.

A recent scientific study carried out by Navdanya, compared the soil of fields where Bt-cotton had been planted for 3 years with adjoining fields with non GMO cotton or other crops. The region covered included Nagpur, Amravati and Wardha of Vidharbha which accounts for highest GMO cotton planting in India, and the highest rate of farmers suicides (4000 per year).

In 3 years, Bt-cotton has reduced the population of Actinomycetes by 17%. Actinomycetes are vital for breaking down cellulose and creating humus.

Bacteria were reduced by 14%. The total microbial biomass was reduced by 8.9%.

Vital soil beneficial enzymes which make nutrients available to plants have also been drastically reduced. Acid Phosphatase which contributes to uptake of phosphates was reduced by 26.6%. Nitrogenase enzymes which help fix nitrogen were reduced by 22.6%.

At this rate, in a decade of planting with GM cotton, or any GM crop with Bt genes in it, could lead to total destruction of soil organisms, leaving dead soil unable to produce food.

The ISAAA in its recent release has stated that there are 7.6 mha of Bt-cotton in India. This means 7.6 mha of dying soils.

The impact of GMO's on soil organisms is not commonly studied. This is a vital lacunae because Bt toxin crops such as Mon 810 corn or Bt-cotton or Bt Brinjal have serious impact on beneficial soil organisms.

The government of India is trying to grant approval to Bt Brinjal without Bio safety studies on impact on Soil organisms. The European Commission is trying to put pressure on GMO free countries to introduce Mon 810.

The Navdanya study the first that has looked at the long term impact of Bt cotton on soil organisms is a wake up to regulators worldwide. It also shows that the claims of the Biotechnology industry about the safety of GM crops are false.

To get a copy of the report and for further information, please contact -

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