How GM crops have increased the use of danger pesticides and created superweeds and toxin-resistant insects

By Sean Poulter

Planting GM crops has led to an increase rather than a decrease in the use of pesticides in the last 16 years, according to US scientists.

The researchers said that the plants have caused superweeds and toxin-resistant insects to emerge, meaning farmers have not only had to use more pesticides on their crops overall, but are also using older and more dangerous chemicals.

The findings dramatically undermine the case for adopting the crops, which were sold to farmers and shoppers on the basis that they would reduce the need to be treated with powerful chemicals.



Genetically modified plants now dominate US agriculture, and the situation will only get worse, the professor warns

The team at Washington State University found the weight of chemicals used on US farms has increased by 183million kilos since GM crops were introduced in 1996.

Of that total, herbicide use increased over the 16-year period by 239million kilos while insecticide use decreased by 56million kilos.

Most GM crops produced to date – such as corn, soya and cotton – have been modified in the laboratory to make them immune to certain weedkillers, such as Monsanto's RoundUp.

It means the GM plants can thrive while the surrounding weeds are wiped out.

However, the reality is that a number of weeds have developed an immunity to the chemical and are now able to swamp farmers' fields.

The biggest threats are giant ragweed and pigweed, which grows at a rate of more than one inch a day and reaches a height of three metres.



In order to fight rapidly spreading resistant weeds, farmers are being forced to expand use of older, higherrisk herbicides, it is reported The so-called perfect superweed is extremely hardy, produces 10,000 seeds at a time and will smother food crops in the same field.

The overall effect is that desperate farmers are now using a cocktail of many different chemicals to try and tame the weeds.

A number of GM plants, including some types of corn, have been modified to include a toxin called Bt that kills predator insects that feed on them.

But again, these insects are developing an immunity to the toxin included in the plants, which means farmers have to resort to chemical sprays.

Study leader Professor Charles Benbrook, of the university's Center for Sustaining Agriculture and Natural Resources, said: 'Resistant weeds have become a major problem for many farmers reliant on GM crops and are now driving up the volume of herbicide needed each year by about 25 per cent.



The published research comes two weeks after a feeding trial in rats raised concerns

'Things are getting worse, fast. In order to deal with rapidly spreading resistant weeds, farmers are being forced to expand use of older, higher-risk herbicides.

'To stop corn and cotton insects from developing resistance to Bt, farmers planting Bt crops are being asked to spray the insecticides that Bt corn and cotton were designed to displace.'

Monsanto said they had no immediate comment on the findings.

A spokesman said: 'We're looking at this. Our experts haven't been able to access the supporting data as yet.' Professor Benbrook's paper is published in the peer-reviewed journal Environmental Sciences Europe and comes two weeks after a feeding trial in rats raised concerns that consuming GM corn might trigger a rise in breast cancer and organ damage.

Recently, scientists who have published studies critical of GM crops and food have suffered a wave of wellorchestrated attacks designed to undermine their work by supporters of the technology.