

COMMENTARY

GMO COMMENTARY

Response by Robert Blair, Professor Emeritus, Faculty of Land and Food System, University of British Columbia, Vancouver Canada; in response to health and safety concerns of GMO foods.

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Hi, Joe: thanks for your efforts to educate your colleagues in Africa on the established facts regarding the safety of genetically modified (GM) foods. Africa has much to benefit from the cultivation and utilization of GM crops. Luckily they have some very talented scientists, one of them an ex-PhD student of mine at the University of Nairobi.

I read over the so-called "evidence" on the health hazards of GM food and feed published by Mae-Wan Ho in the journal *Entropy* (The New Genetics and Natural versus Artificial Genetic Modification *Entropy* **2013**, 15(11), 4748-4781; doi: [10.3390/e15114748](https://doi.org/10.3390/e15114748)) and I have to conclude that it is essentially in the category of "urban myth". There is to date NO substantiated case of any health problem related to GM foods or feeds. As we pointed out in our book (Genetic Modification and Food Quality – A Down to Earth Analysis), several reports like those cited in the *Entropy* article claim to show evidence of safety concerns related to some GM foods. All have the same deficiencies: faulty design and experimental techniques, questionable statistics and more importantly no confirmation of the findings by independent scientists. Some are merely unsubstantiated field reports from farmers.

Our conclusions on the safety of GM foods and feeds agree with assessments made by the world's leading scientific bodies, including the American Association for the Advancement of Science, the World Health Organization, the American Medical Association, the US National Academy of Sciences, the British Royal Society, and every other respected organization that has examined the evidence. The European Commission funded more than 130 research projects involving 500 independent research groups over 25 years and concluded that "There is, as of today, no scientific evidence associating GMOs (genetically-modified organisms) with higher risks for the environment or for food and feed safety than conventional plants and organisms". The World Health Organisation stated that: "No effects on human health have been shown as a result of the consumption of such foods by the general population in the countries where they have been approved".

Here are 2 quotations from our book "Genetic Modification and Food Quality - A Down to Earth Analysis" that you may find useful in connection with your forthcoming publication.

"It is time to reopen the debate about GM crops in the UK but this time based on scientific facts and analysis. We need to consider what the science has to say about risks and

benefits, uncoloured by commercial interests and ideological opinion. It is not acceptable if we deny the world's poorest access to ways that could help their food security, if that denial is based on fashion and ill-informed opinion rather than good science." Sir Paul Nurse, Royal Society – Richard Dimpleby Lecture, February 2012.

"A good example of how being better informed can result in a change of opinion is that of Mark Lynas who went from being an anti-GM crusader to an advocate for GM foods. As he said at the 2013 Oxford Farming Conference "For the record, here and upfront, I apologise for having spent several years ripping up GM crops. I am also sorry that I helped to start the anti-GM movement back in the mid-1990s, and that I thereby assisted in demonising an important technological option which can be used to benefit the environment...So I did some reading. And I discovered that one by one my cherished beliefs about GM turned out to be little more than green urban myths"".