Translation from Swedish 11.8.16

The environmental organization Greenpeace has fallen sharply in windy weather this summer. Large and well-known parts of the scientific community have come together in a critique of Greenpeace's goals and means of questions about modern plant breeding. The criticism applies both to their choice of symbolic issue - opposition to modern genetic engineering in plant breeding - both their inability or disinterest, to distance themselves from the tail of the activists who vandalize public funded field trials, harassing scientists and engage in violent crime.

On June 30, wrote 110 Nobel laureates in physics, chemistry and physiology or medicine a letter addressed to Greenpeace, the UN and governments worldwide[[1]](#footnote-1). The letter accused Greenpeace and its supporters to "have misled the public about the [biotechnology in agriculture] risks, benefits and importance, and supported criminal acts which approved field trials and research projects have been destroyed" (our translation.). The letter particularly emphasizes Greenpeace campaigning against the Golden rice, and ends with a very sharp selection: "How many poor people in the world must die before this starts to be considered a crime against humanity?"

The Golden rice is a variety of rice that has the ability to form the subject β-carotene, the substance that our bodies then converted into vitamin. In countries where rice is the staple food and wrapped meat or vegetables is small, vitamin A deficiency, a widespread problem, because rice lacks natural β-carotene. Lack of vitamin A causes chronic visual impairment and blindness in many cases. According to the World Health Organization affected hundreds of thousands of children annually.

The science behind vitamin enrichment has been understood since 2002 and what remained was to cross into the property of locally adapted rice varieties and do field trials to ensure that the varieties retain their farming properties even after inkorsningen. It has also established a humanitarian board that ensured freedom of access to the golden rice farmers with low incomes. The variety protection for ordinary crops are negotiated away and the patents that protect biotechnological innovations apply only if Golden rice grown commercially by a major seed company.

Vitamin deficiency that comes from a nutrient and one-sided diet based primarily on carbohydrate-rich staple crops lost both in the West - where we have an abundance of calories - and the world's poorest countries. WHO calls it the hidden hunger. A varied diet is of course important to deal with this problem, but plant breeding can help by increasing the nutrient content in both the vegetables and staple crops. Plant breeders worldwide are working on a broad front to develop nutritionally enriched versions of several of the major staple crops - rice, besides also including wheat, maize and cassava.

The reason that there are vitamin A enriched rice but not vitamin-enriched corn or cassava affected by Greenpeace evil eye is that the former has been developed using modern genetic engineering. Ever since Greenpeace released nuclear power as a campaign topic in the 1990s, they have been using GM crops campaign area and the cash cow. The road mapped out by Greenpeace's then chief, Lord Melchett, facing House of Lords made the startling declaration that "this organization will remain opposed to GM crops, regardless of any scientific risk assessments".

This opposition has, inter alia, consisted of Greenpeace has encountered tangible ways to undermine or sabotage such a science that they dislike. Examples are financial contributions to the studies posted to confirm the organization's preconceived opinions[[2]](#footnote-2). The studies have then been used to deceive the public, policy makers and journalists, among other things, resulted in undermining confidence in the European Food Safety Authority EFSA. Greenpeace has supported the now famose scientist Gilles-Eric Séralini, whose research team behind the acclaimed study that allegedly proved that GM maize and the herbicide glyphosate (Roundup) causes cancer in rats. The study was so poor that the journal which published it later withdrew the article[[3]](#footnote-3) on the grounds that the researchers' conclusions are not supported by their own results. Other examples of Greenpeace actions against GM crops are more or less infantile propaganda number (eg "HejdaGMO") and attacks on field trials[[4]](#footnote-4).

In its response to the Nobel Laureates denies Greenpeace that their campaigning has delayed the introduction of the Golden rice and refers to a study[[5]](#footnote-5) of anthropology professor Glenn Davies Stone at Washington University in St. Louis. But the claim has been partly not supported in the referenced study, and it has been strongly contested by Adrian Dubock[[6]](#footnote-6), active at the Golden rice Humanitarian Board. Otherwise, the Nobel laureate's letter met with a questioning of their skills. According to the organization, "GM Watch" - one of those self-appointed representatives of the public interest - are not Nobel laureates "relevant expertise" and "Food and Water Watch" - another self-proclaimed expert without academic qualifications - felt the same way to learn more about science than 110 Nobel Laureates.

To demonstrate the wide support for Nobel Laureates in fact among scientists and other experts - although they have not received the Nobel Prize - dealing with the current issues in agriculture and plant breeding, it has started a petition. This has so far collected 6000 signatures, of which at least half are professionals in the relevant fields, demonstrating a great commitment to the Nobel laureate's criticism

The Golden rice is basically a humanitarian project. Greenpeace has sometimes been portrayed as a "Trojan horse" which, if accepted, would increase the acceptance of more general value-added crops using modern genetic engineering. Probably, they have absolutely right in his analysis. If farmers and consumers were given the opportunity to experience the benefits of modern plant breeding, they would realize that the environmental movement, Greenpeace in the lead, have focused their campaign money on the wrong horse - Trojan or not. Nobel Laureates letter is ultimately about giving us that opportunity.

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In order to prevent the insinuation that usually show up, we want to declare that none of us have research or salary funds from either plant breeding companies and the chemical industry.

1. <http://supportprecisionagriculture.org/nobel-laureate-gmo-letter_rjr.html> [↑](#footnote-ref-1)
2. [http://link.springer.com/article/10.1007%2Fs00244-006-0149-5](http://link.springer.com/article/10.1007/s00244-006-0149-5) [↑](#footnote-ref-2)
3. <http://www.sciencedirect.com/science/article/pii/S0278691512005637> [↑](#footnote-ref-3)
4. <http://www.stockandland.com.au/story/3610411/gm-wheat-raiders-plead-guilty/> [↑](#footnote-ref-4)
5. <http://link.springer.com/article/10.1007/s10460-016-9696-1> [↑](#footnote-ref-5)
6. <http://www.goldenrice.org/PDFs/Dubock-The_present_status_of_Golden_Rice-2014.pdf> [↑](#footnote-ref-6)