

Are genetically modified organisms really a problem?

INTRODUCTION

This work will assess the potential problems presented by genetically modified organisms (GMOs). We will focus on the process of obtaining a specific GMO (Golden Rice), this way we will understand how GMOs are obtained and we will be able to assess whether genetic engineering should really be feared. When drawing conclusions we will also take into account the problems that have been presented by GMOs.

OBJECTIVES

To assess the problems presented by genetically modified organisms through examples, in order to avoid generalizing.
To understand the technology behind these products.
To understand the stigma surrounding GMOs and to build your own opinion about it.

GMOs PROBLEMS

Potatoes and Lectin case

Antifreeze proteins case

Bt 10 case

Environmental pollution problems

GMOs WITHOUT KNOWN PROBLEMS

AQUADVANTAGE SALMON



Figure 1. Size difference between an AquAdvantage and a conventional salmon at 3 years of age (<http://aquabounty.com/>).

GOLDEN RICE

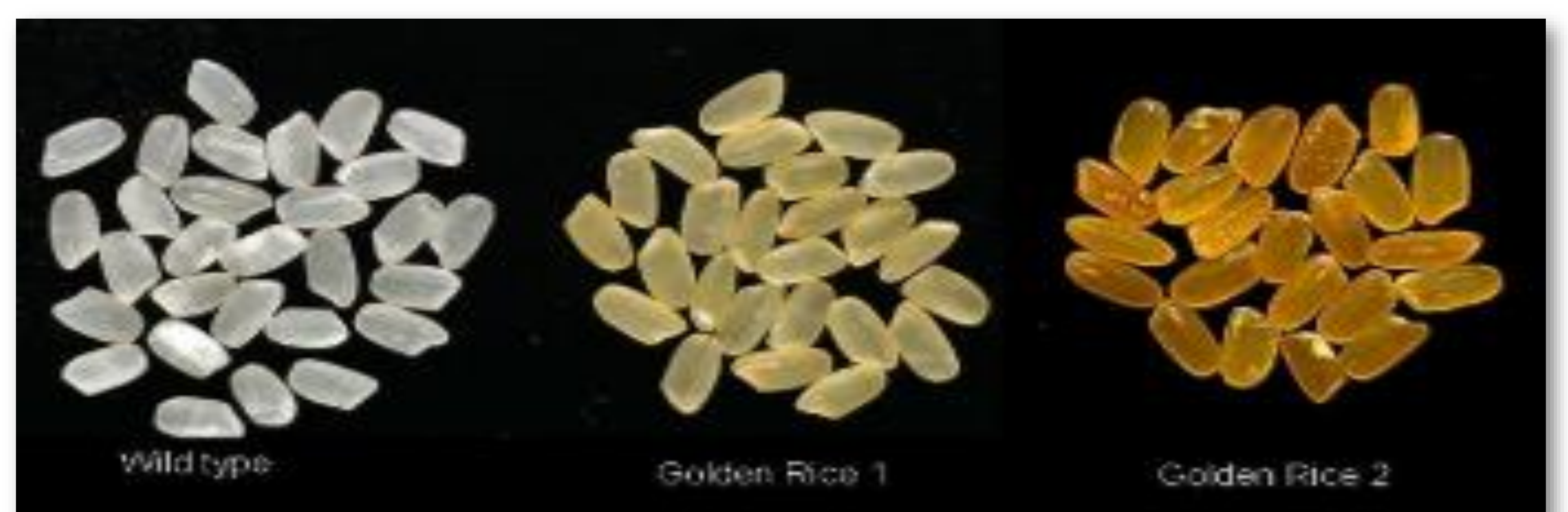


Figure 2. Rice endosperm color evolution depending on β -carotene levels. ([http:// goldenrice.org/](http://goldenrice.org/)).

CONCLUSIONS

Due to the high amount and the high diversity of GMOs their security cannot be assessed altogether. What we can do is present the main problems, which are: cross-contamination (in the case of vegetables) and poor consumer perception. On the other hand, genetic engineering has a great potential when it comes to creating products that make life easier, both for consumers and producers.