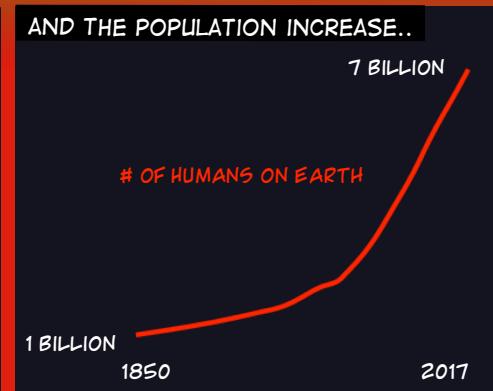
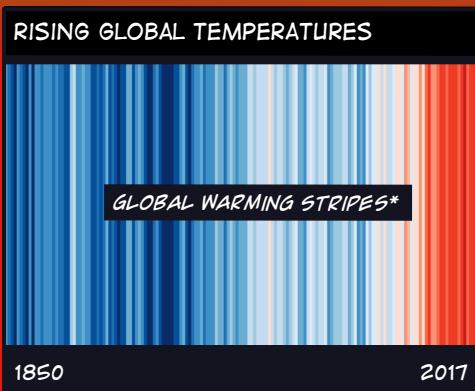


# Let plant scientists secure our food supply!

a comic inspired by the talk by Dirk Inzé.

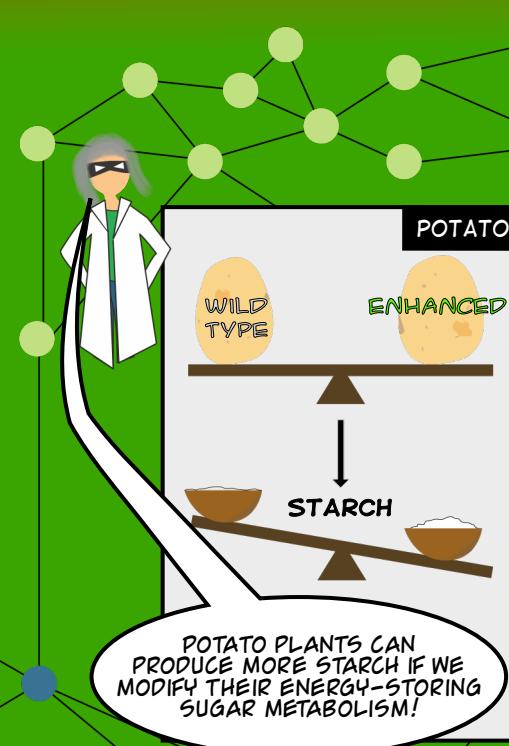
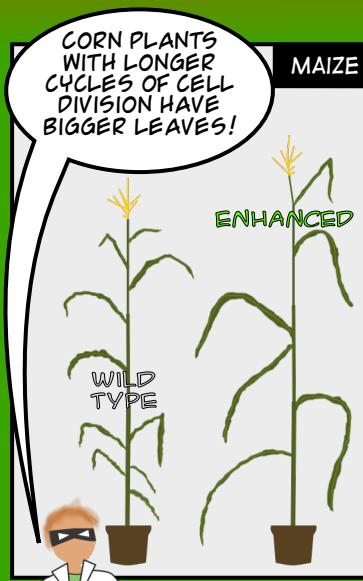


WE ARE MAKING A MESS!

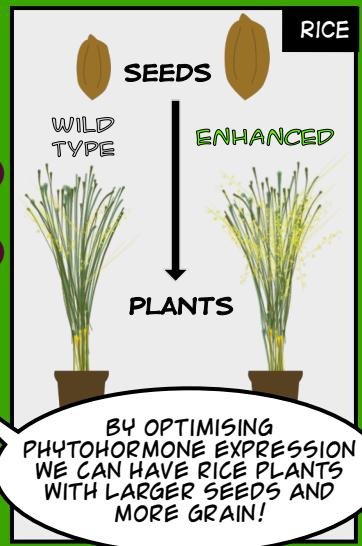
**CLIMATE CRISIS**  
**BIODIVERSITY LOSS**  
**OCEAN ACIDIFICATION**  
**SHRINKING ICE SHEETS**



PLANT SCIENTISTS MIGHT NOT SEEM YOUR USUAL SUPERHEROES, BUT THEY HAVE SOME GOOD IDEAS TO MAINTAIN CROP YIELD AND SECURE OUR FOOD SOURCES IN THESE CHALLENGING TIMES:

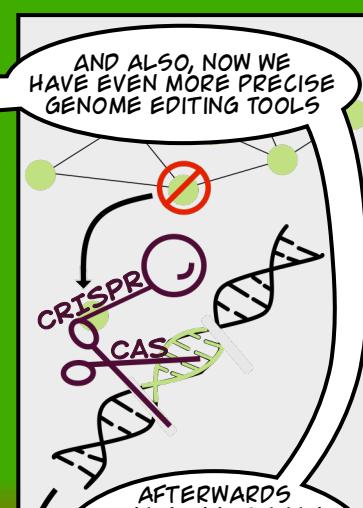
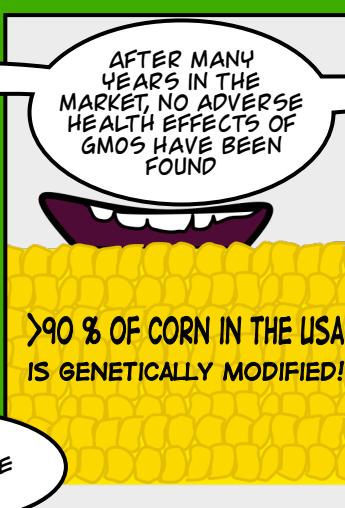
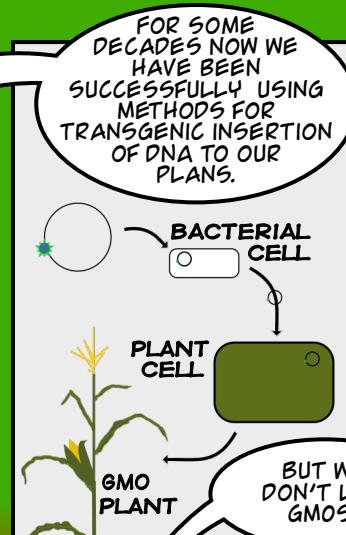
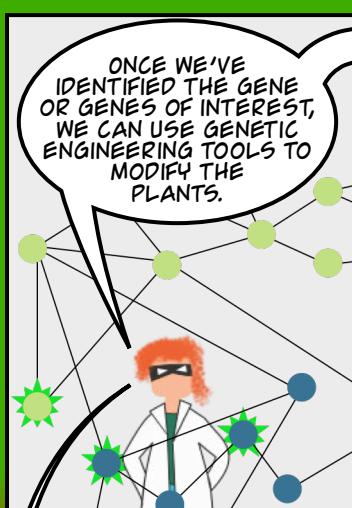


THERE IS SO MUCH WE CAN DO WITH THE GENETIC NETWORKS CONTROLLING PLANT GROWTH AND RESISTANCE TO STRESS!



\*[HTTPS://WWW.CLIMATE-LAB-BOOK.AC.UK/2018/WARMING-STRIPES/](https://www.climate-lab-book.ac.uk/2018/warming-stripes/)

\*\*DIRMEYER, P., FLOODS AND DROUGHTS IN A CHANGING CLIMATE - NOW AND THE FUTURE, EARTHZINE (2011)



SOCIETY HAS (UN)USUAL FEARS

ALLERGIES? NOT NATURAL!  
CONTAMINATION? LONG TERM  
GENES IN OUR FOOD? EFFECTS?  
MULTINATIONAL CONTROL?

THE REASONABLE CONCERN ARE MORE SOCIOECONOMICAL THAN SCIENTIFIC ONES.

AND POLITICIANS ARE NOT HELPING BY PUTTING VERY STRONG REGULATIONS

MENU nature

CRISPR plants now subject to tough GM laws in European Union

Top court's ruling threatens research on gene-edited plants.

BY EWEN CALLAWAY

**G**ene-edited crops should be subject to the same stringent regulations that conventional, genetically modified (GM) organisms, Europe's highest court ruled on 25 July.

The decision, handed down by the Justice of the European Union (EU) in Luxembourg, is a major setback for proponents of gene-edited crops, including any that have been developed by CRISPR. They had hoped that organisms created using relatively new, precise gene-editing technologies such as CRISPR-Cas9 would be exempted from existing European law, which has limited the planting and sale of GM crops.

Instead, the EU ruled that crops created using these technologies are subject to a 2011

That is likely to hinder investment in crop research using these tools in the EU, says Purna Bhagat. "From a practical perspective, I don't think this will be at all interesting," he says. "It will move on to other countries." In the same way that GM crops have largely disappeared in the EU, he says, gene-edited crops will probably disappear in Europe. "It's a real concern," he says. Gene-editing technologies are "so new" that it's not clear what companies in Europe will be most interested in developing them. "They are not going to invest in a technology they see not having any commercial application," Bhagat says.

Environmental organization Friends of the Earth in Amsterdam, meanwhile, applauded the court's decision in a statement. It also called

NO INCENTIVE

"This will have a chilling effect on research in the same way that GMO legislation had a chilling effect for 15 years now," Stefan Jansson, a plant physiologist at the University in Sweden. Gene-edited crops will "probably vanish from the market in the EU," he says. "I think that the funds to develop them will dry up." This cannot produce that society finds helpful, then they will likely to fund us."

Jansson also has practical concerns. He has developed a CRISPR crop that he has commercialized, and which was growing in his home garden as he spoke to *Sci*. "I took a photo yesterday, and I took a photo after the ruling. It's still the same plant, yesterday it wasn't a GMO, and now it's a GMO. I'm a bit curious what I have to do. Do I have to remove it?"

25 JULY 2018

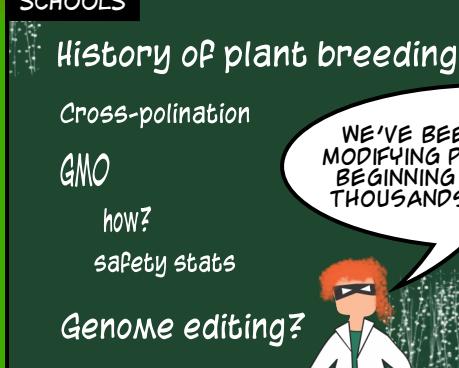
AND THIS INCLUDES GENE-EDITED CROPS.

SO WHAT NOW?

OR NOT.

EDUCATE

SCHOOLS



ADULTS

OUR FOOD SOURCES ARE



POLITICIANS



SPEAK OUT!



DIGITALLY

OR MORE

#GIVECRISPRCHANCE

No to Monopolies.  
Yes to food security!

LET EU SCIENTIST HELP!

(HOPEFULLY NOT) THE END.

This comic strip was created by:

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