



Selling Biotechnology

An Archival Exploration of
the GM Controversy

Gene Editing in 2021

George Eustice, Secretary of State for Environment, Food and Rural Affairs: “Gene editing has the ability to harness the genetic resources that mother nature has provided, in order to tackle the challenges of our age. This includes breeding crops that perform better, reducing costs to farmers and impacts on the environment, and helping us all adapt to the challenges of climate change.”

Huw Jones, Professor of Translational Genomics for Plant Breeding at Aberystwyth University: “We need food and agriculture, but we also need it to stop harming the planet. A combination of better land management and better crops can do that. In its simplest form, gene editing is merely a speedier way to find the genetic variation made by natural processes.”

Fiona Harvey, “Gene editing of crops and livestock may soon be permitted in England,” *The Guardian* (07 January 2021).



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Building a Narrative



THIS STRAWBERRY
TASTES JUST LIKE
A STRAWBERRY.



FUNNY how we all suspect fruit and vegetables don't taste "as they used to." Year round demand, forced ripening times and early harvesting are to blame.

Plant biotechnology offers the potential to produce crops that not only taste better, but are also healthier.

Monsanto is a leading biotechnology company. Our modified seeds are a new development of traditional cross breeding, which has been employed for centuries. Each one is rigorously tested for safety and nutrition. The foods they produce have been approved by over 20 government regulatory agencies including those in the UK, Denmark, Switzerland and the Netherlands. Likely future offerings

include potatoes that will absorb less oil when fried, corn and soybeans with an increased protein content, tomatoes with a fresher flavour and strawberries that retain their natural sweetness.

Monsanto believes you should be fully aware of the facts before making a purchase.

We support the efforts of retailers and others to provide you with labels about the use of biotechnology in food. We encourage you to look out for them.

For more information, ask for a leaflet at your local supermarket, call us free on 0800 092 0401, write to us or visit our website at www.monsanto.co.uk.



We urge you not just to accept our views. Please listen to other opinions. Call Ireland on 099 183373 or visit their website at www.melund.co.uk. Read what the Genetic Forum think at their website, www.geneticforum.org.uk.

Farmers Discovered Biotechnology 10,000 Years Ago: It's Getting Better With Age

SEE INSIDE FOR ...

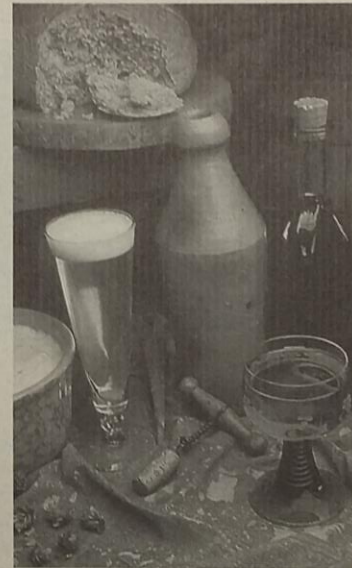
You'll find interesting facts about our planet and its hungry population. You'll learn what Monsanto's researchers can do and are doing to prepare farmers around the world to feed more mouths with fewer acres.

Many of the modern tools and techniques we use today to create new foods are not new at all, but merely improved, more precise versions of methods employed throughout history. Even researchers using the latest biotechnology methods, which allow the transfer of a gene from one organism to another, basically are working with the same scientific processes people have used for centuries to increase crop productivity, improve the food supply and produce better foods.

Our long, gradual learning process about foods and food production has spanned several centuries and continues today.

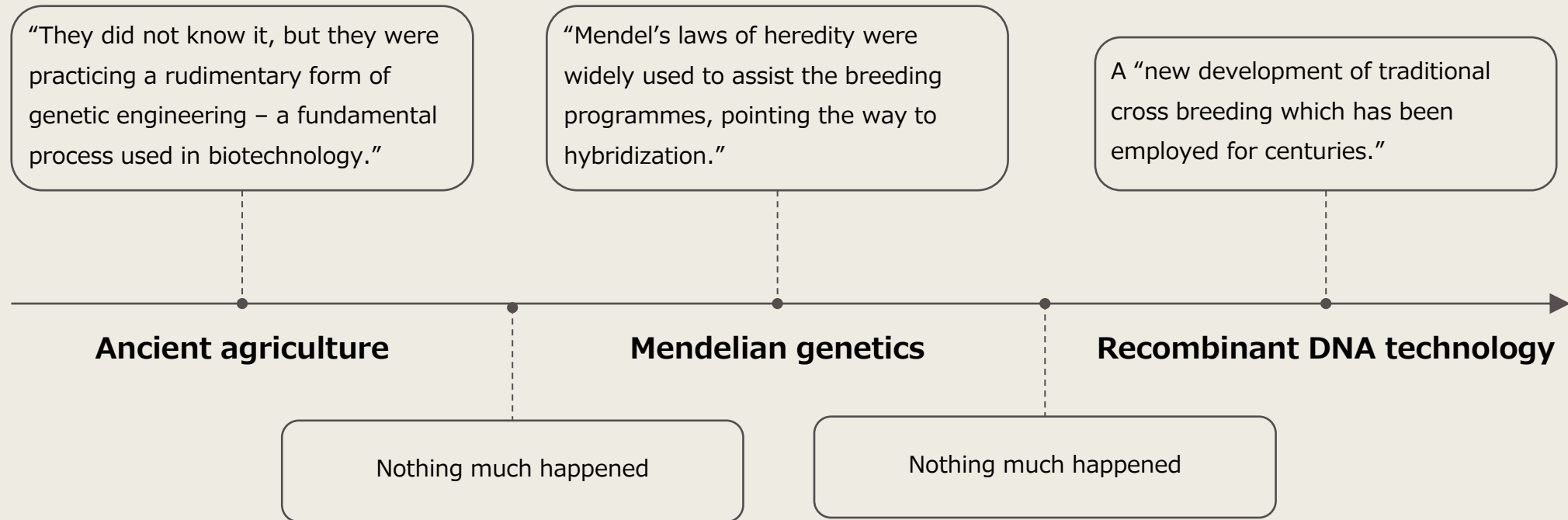
Hundreds of thousands of years ago, people wandered the earth, collecting and eating only what they found growing in nature. By about 8000 B.C., however, the first farmers decided to stay in one place and grow certain plants as crops — creating agriculture and civilization, in that order.

Since that time, people have continued to select, sow and harvest seeds to produce



BIONEWMS
ion On Biotechnology

The Corporate Narrative



Explaining Failure



Monsanto Company 1997 Annual Report

Moore's Law
Transistors per chip
in millions

Source: Intel Corp.

IN 1965, Gordon Moore predicted that the computing power of silicon chips would double every 18 to 24 months. This phenomenon, now known as "Moore's Law," is driving the rapid growth and economic value of the computer industry.

TODAY, the ability to identify and use genetic information is doubling every 12 to 24 months. This exponential growth in biological knowledge is transforming agriculture, nutrition and health care in the emerging life sciences industry.

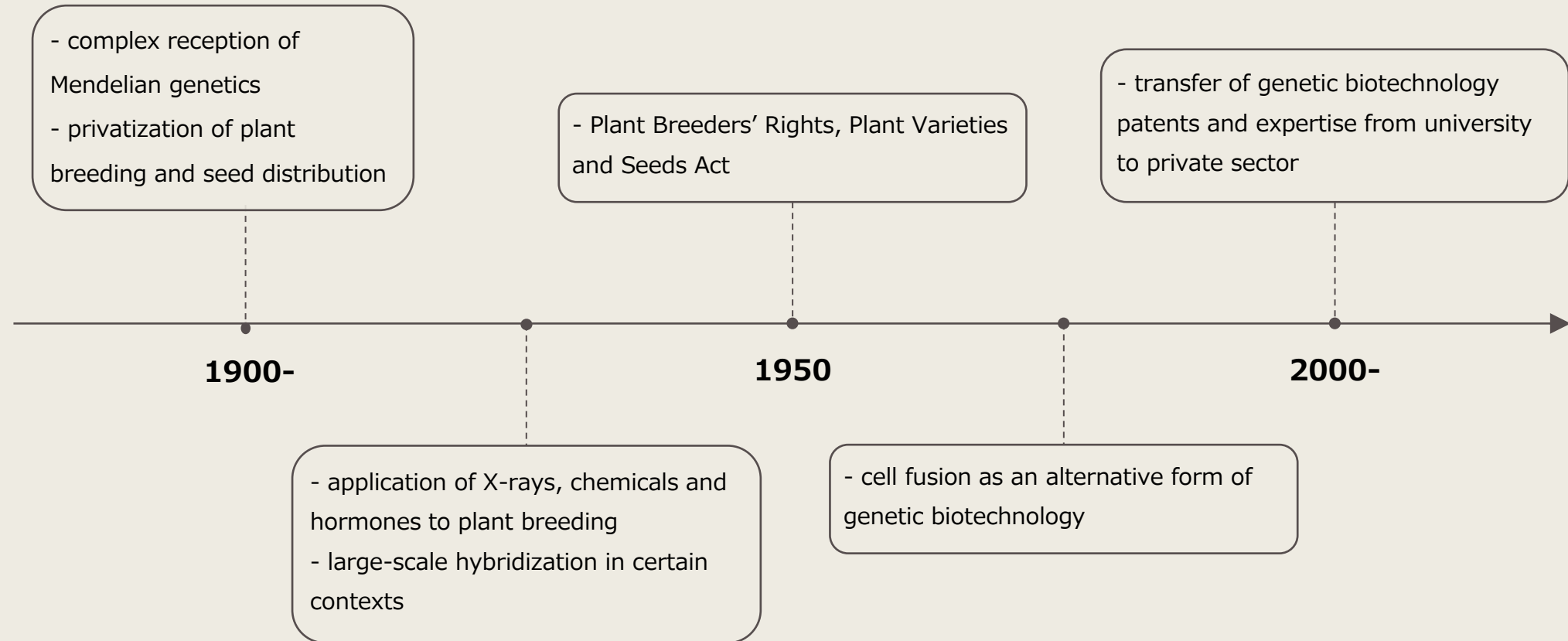
Monsanto's Law
Registered genetic base
in millions

Source: GenBank

MONSANTO
Food · Health · Hope™

Geoff Spriegel, Research Director for Sainsburys: "In this scenario, technical development has continued apace, almost without reference, or even a means of reference to the consumer. This leads to difficulties when we [in the industry] try to explain new technology to consumers as enhancements to previous production techniques, when knowledge of the techniques which are being replaced is very limited."

Complicating the Narrative



Concluding Thoughts

- Contemporary appeals to the similarities between gene editing and natural variation are a modern effort to build a sense of continuity between past and future.
- This strategy was tried during the 1980s and 1990s with appeals to the long history of plant breeding.
- Its failure can be explained through its inherent contradictions and the sheer amount expected of it
- OR perhaps this was a doomed enterprise – what about public mistrust of corporations and government?
- What does it the failure of GM mean for future forms of agricultural biotechnology

