

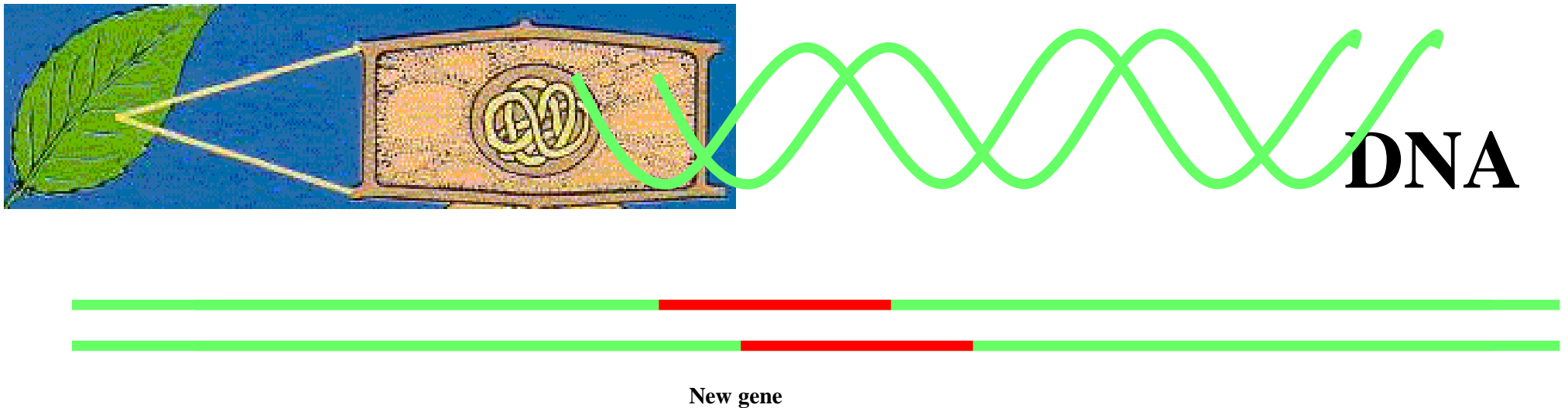
Greenpeace global campaign against GE Food

綠色和平反對轉基因食品全球項目

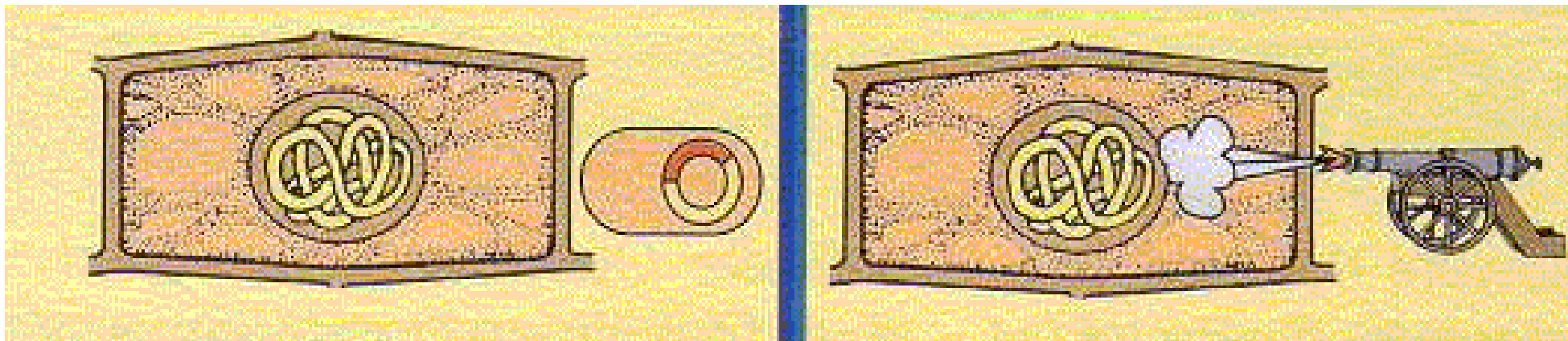


What is Genetic Engineering / 何謂轉基因?

Cut and Paste! / 剪下貼上!



Introducing a gene into a plant cell / 在植物細胞中加入一段基因



Agrobacterium / 農桿菌

From cells to plants

Particle gun: gold particles with DNA / 粒子槍: 金粒子做為DNA載體



transformierte Zelle

Kalluskultur

regenerierte transgene Pflanze

costly, difficult, breeding still needs 10 years / 困難且昂貴, 尚需10年培育時間

Environmental Risks / 環境風險



A release is irreversible / 不可逆反應



Non-target effects / 影響範圍無特定目標



Superweeds / 超級雜草

Transgenes will escape: / 轉基因作物的脫逃
GE crops can contaminate: non GE crops & threatens
organic agriculture that excludes GE crops
轉基因作物可以汙染非轉基因作物, 並對排除轉基因
作物的有機農業造成威脅



Non-Target Effects / 影響範圍無特定目標



Monarch / 帝王蝶

+



Bt-maize pollen / 基改玉蜀黍花粉

+

Bt-toxin →

Bt-toxin → prey →



Lacewing / 草蜻蛉

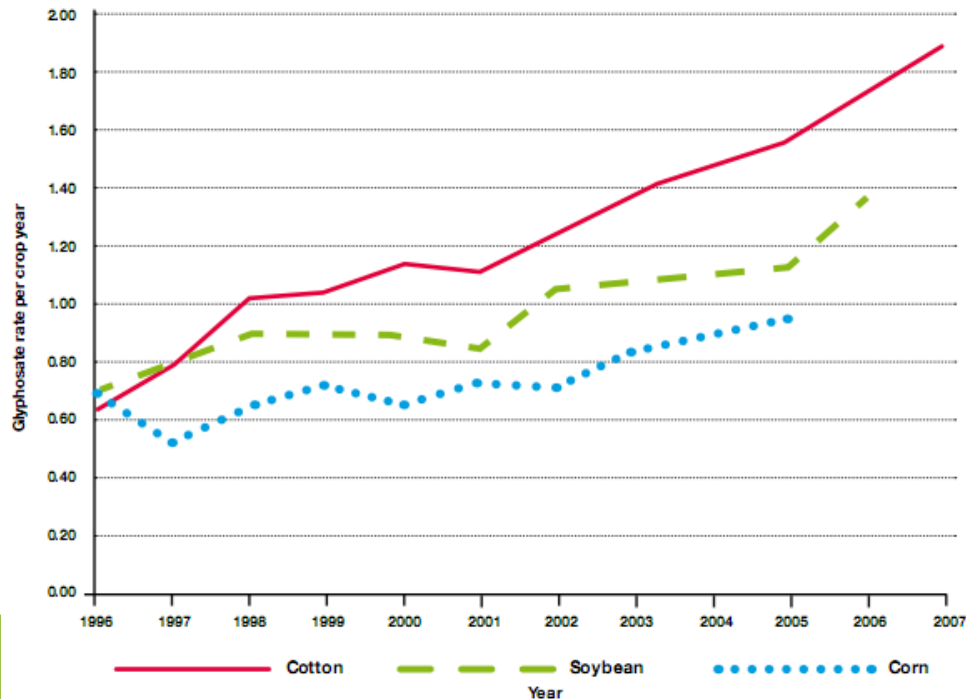
“Superweeds” / 超級雜草

Weeds in agricultural and natural ecosystems

生態系中的農作及野生雜草

Average glyphosate application rate USA

1996 Introduction of Monsanto's GE glyphosate tolerant crops / 嘉磷塞全美用量, 1996孟山都公司引進對嘉磷塞免疫之基改植物



Possible Health Risks / 可能的健康風險



Unintended effects / 非計劃內的影響

- *GE potato: Levels of a potato toxin (glycoalkaloid) increased & decreased unexpectedly in separate GE experiments / 基改馬鈴薯中的龍葵鹼含量隨不同實驗而改變, 並且無法預測*
- *GE corn (Mon863) shows: Signs of toxicity in the liver and kidney of test animals / 基改玉米對實驗動物的肝臟和腎臟造成毒性*

Allergies / 過敏

- *GE pea caused allergenic reactions in mice. / 基改豌豆對大鼠造成過敏反應*
- *Inhaling the GE pea protein caused inflammation of the lungs / 基改豌豆蛋白造成肺臟發炎*
- *Eating the GE peas increased sensitive to other food allergies. / 食用基改豌豆會增加因其他食物而導致過敏反應的機率*

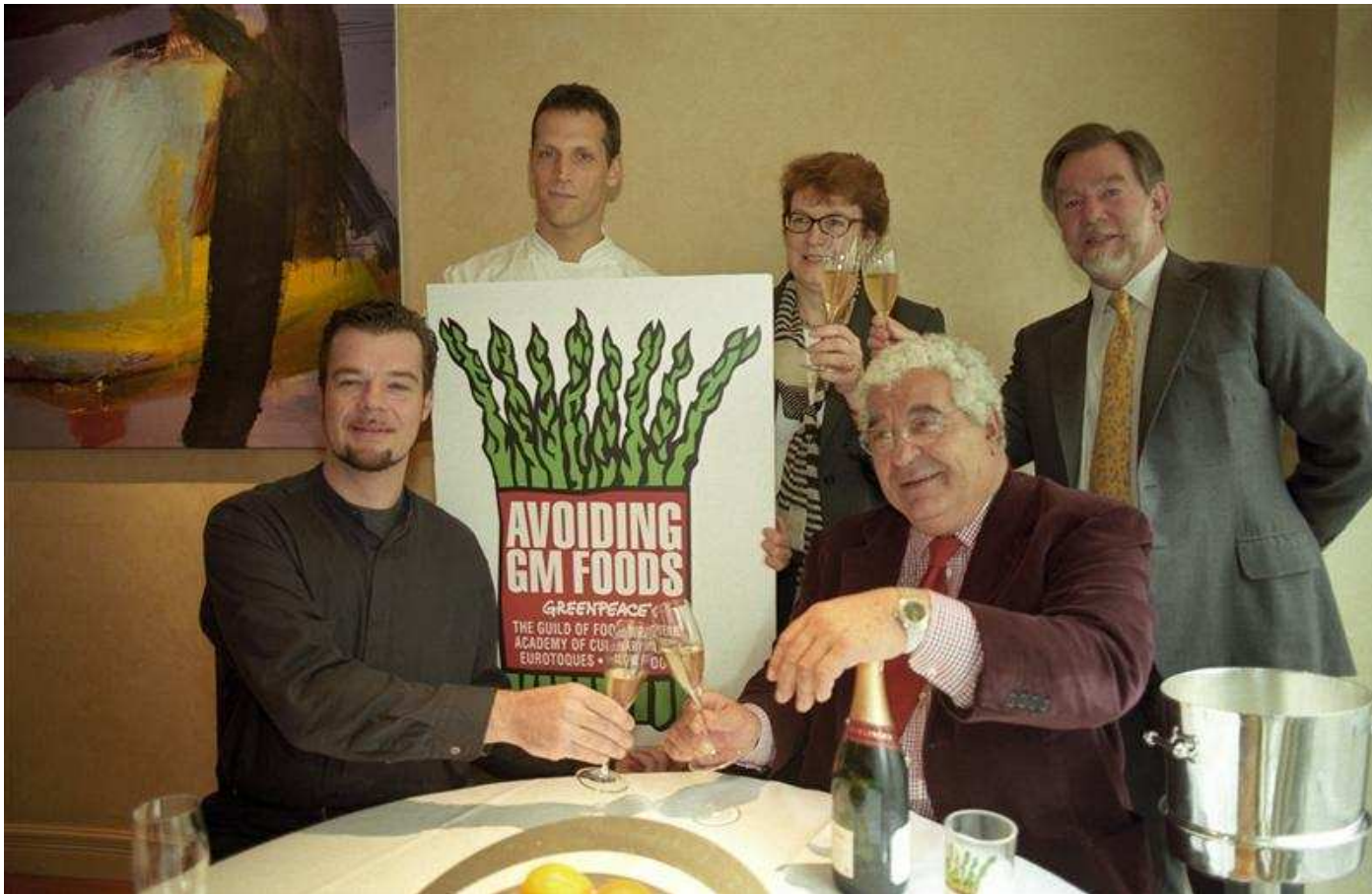
The Initial Outcry in Europe

歐洲的初期抗議



Campaign to trigger Consumers' outcry 促使消費者抗議的運動

- Within a year the initial outcry developed into a consumers' led fight against GE food.



- Supermarkets Sainsbury, Carrefour, Tesco came under consumer pressure. All had to give non-GE commitments.
- 超市Sainsbury, 家樂福, 特易購紛紛受到消費者壓力。並做出支持非轉基因的承諾。



- Major food companies such as Unilever, Nestle, Danone, Kraft followed and committed to non GE
- 主要食品企業，例如聯合利華、雀巢、達能、卡夫也隨之，承諾支持非轉基因。



- Greenpeace created consumers guides on how to avoid GE food and made these available to people throughout Europe later
- 綠色和平製作了消費者指南，隨後讓全歐洲的消費者可以看到，並指導他們如何避免轉基因食品。

Aldi	Kraft	Barilla	Bodin	Findus
Coop	Jacobs	Edeka	Ferrero	Nutricia
Hipp	Spar	McDonald's	Tegel	Unilever UK
Sapporo	Asahi	Tengelmann	Safeway	Cadbury's
Corona	Nestlé	Ben&Jerry's	McCain	Friki
Kirin	ASDA	Migros	Burger King	Heinz
Danone	DUC	Tesco	Findus	Coca Cola

Partial list of Companies that committed against GE food

Opposition expanded from the supermarkets to the fields 反對轉基因逐漸從超市到達田間。



Finally 終於

- European governments could no longer keep ignoring and overruling their citizens voices. EU adopted a moratorium in 1999
- 歐洲政府再無法忽視和否定公民的聲音。歐盟在1999年通過禁令。
- As soon the European Union lifted the moratorium in 2004, people took to the streets again...
- 2004年當歐盟試圖解除禁令時，人們再次走上街頭表達意見.....

Mass protest in Spain 2010 2010年西班牙 聲勢浩大的抗議遊行








- The first ever citizens initiative started in EU in 2010. In less than 7 months it gathered more than 1 million signatures demanding a new moratorium on GE crops.
- 歐盟第一個公民倡議于2010年開始，在短短7個月的時間裡，收集了超過100萬個簽名連署，要求對轉基因作物的新禁令。



GMO free regions in EU

歐盟“無基因改造生物”區域



-  Florence Charter signing Region
-  Official administrative region self declared GMO free
-  GMO free nature park
-  borders of GMO-free county, provincia, departement or district
-  City, town, community or farm declared GMO free

Opposition to GE crops is not confined to Europe

反對轉基因作物不僅限於歐洲

- In 2004, Monsanto, was forced to stop its plans to commercialize GE wheat in North America, and announce that they dropped plans for further development or field trials of GE wheat.
- 在2004年，孟山都公司在北美地區被強制禁止推行轉基因小麥的商業化，並公告宣稱他們將放棄繼續轉基因小麥的研發和田間試驗計畫

India: farmers, consumers and environment organization
join forces to stop GE expansion

印度：農民、消費者和環保組織合力防止轉基因的擴散。



- India government stopped the commercialization of GE brinjal in 2010.
- 印度政府在2010年停止轉基因茄子的商業化進程。



Thai government confirms its commitment to non GE rice in 2011.

泰國政府在2011年確定國家的非轉基因大米政策。



The Campaign also spread to China mainland
反對運動也傳到了中國大陸

**2004 urgency: GE rice was about to be approved
for commercialization**

**2004年的緊急狀況：轉基因稻米即將被批准商業
化種植**

2005 -2007

Illegal GE Rice非法轉基因稻米

- Greenpeace discovered large scale growth of illegal GE rice in Hubei province in 2005
- 綠色和平於2005年發現非法轉基因大米於湖北省大面積種植
- Food market contaminated by illegal GE rice
- 食品市場被非法轉基因大米污染





2008-2009

Exposing the food security threat: The foreign patent control on Chinese GE rice

揭露食品安全威脅：中國的轉基因米受到外國專利控制

Threat to food sovereignty

Threat for farmers

Threat to food security

- 對糧食主權的威脅
- 對農民的威脅
- 對食品安全的威脅



End 2009 GE rice hot and urgent: The secrete issuing of biosafety certificate for GE rice 2009年底 轉基因大米緊急且燙手： 秘密為轉基因稻米頒發生物安全證書

- Secrecy and lack of transparency how MoA kept people in the dark when their daily food and life is at stake became a major issue of debate..
- 秘密性、缺乏透明度：農業部讓人們在日常食物和生活處於風險之中卻讓他們毫不知情...



In the mean time Greenpeace got... 同時綠色和平得到了...

more and more food companies over 90 and supermarkets to give non GE rice commitment. Among them Cofco and Yihai Kerry

越來越多的食品公司(90多個)和超市給出避免轉基因大米的承諾。其中包括中糧和益海嘉裡。



■ Greenpeace confronts those that fail to commit to non GE rice...

■ 綠色和平與那些不承諾非轉基因大米的公司對抗..



Walmart:

Greenpeace files first legal case against a company in China

沃爾瑪：綠色和平在中國第一次對公司提起法律訴訟

Greenpeace consumers guide for non GE and healthy food reaches
 綠色和平針對非轉基因和健康食物的消費者指南

Greenpeace consumers guide for non GE and healthy food

如何避免轉基因食品

如何避免健康食品

品名	品牌	是否含轉基因	是否健康
餅乾及點心
沖調飲料
方便麵
休閒零食
啤酒
調味品



half a million consumers via mobile and web
 500,000消費者通過手機和網路獲得此類資訊
 channels

Supermarket Rankings

Supermarket Ranking Guide 2010

Rank	Supermarket	Transgenic	Healthy
1 Tied	Camefour, Auchan	Yes	Yes
3	Shanghai City Shop	Yes	Yes
4	Beijing Ito Yokado	Yes	Yes
5	Huapu (Jan Mart)	Yes	Yes
6	Aeon & Jusco Beijing (North China)	Yes	Yes
7	NIGS	Yes	Yes
8	Walmart	Yes	Yes
9	Welcome (Hong Kong)	Yes	Yes
10	Vanguard	Yes	Yes
11 Tied	HuaLian (including Lianhua, Huakan, and Century Mart), Lotus, Jusco (South China), Jusco (Hong Kong), Park and Shop, Chaoshifa, Jinglekong, and Wu-mart	Yes	Yes
19 Tied	Chengdu Ito Yokado, Tesco	Yes	Yes

Legend:
 The supermarket has now sold in the area.
 The supermarket has never sold in the area.
 The supermarket has never sold in the area.
 The supermarket has never sold in the area.



September 2011

2011年9月

**Chinese government decides
to suspend any GE rice commercialization
for 5-10 years**

**中國政府決定在5-10年內中止任何基改
水稻商業化的進程**

And there is opposition also in the Americas 在美洲一樣也有反對的聲音

- Bayer was forced to stop its plan to commercialize GE rice in Brazil and had to withdraw its application in 2010.
- 拜耳被強制終止在巴西商業化種植轉基因稻米，在2010年撤回了申請。



- Recent massive protest in USA against GE salmon, and many court cases (in US) against GE crops, and labeling demands.
- 在美國有大量的反對轉基因鮭魚的抗議，大量針對轉基因作物、標識要求的訴訟。

Thank you

謝謝

更多訊息請見綠色和平官網

[http://www.greenpeace.org/international/en/campaigns/
agriculture/](http://www.greenpeace.org/international/en/campaigns/agriculture/)