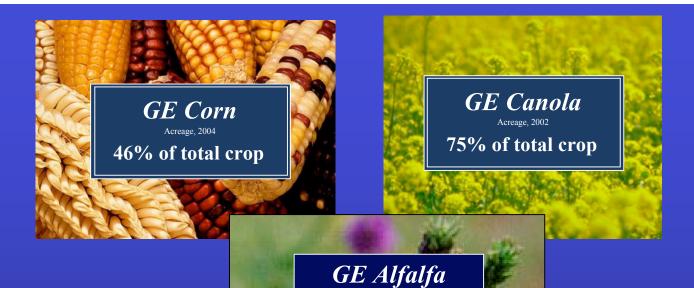




Roundup Ready Soybean TM



ROUNDUP READY TECHNOLOGY



Acreage 2005

<0.5% of total crop





GE Cotton
Acreage, 2004
76% of total crop

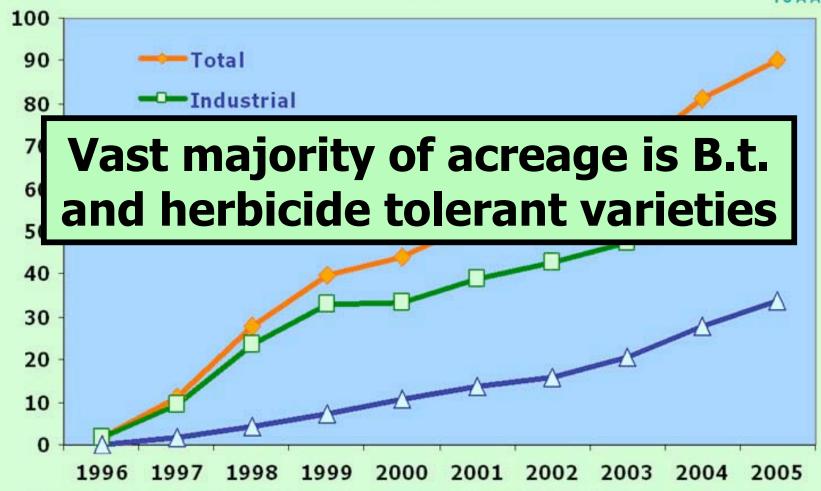




GLOBAL AREA OF BIOTECH CROPS



Million Hectares (1996 to 2005)



Increase of 11%, 9.0 million hectares or 22 million acres, between 2004 and 2009

Source: Clive James, 2005 http://www.isaaa.org/main.htm



Are these good or bad reasons to genetically modify plants or animals?

	VERY GOOD	VERY <u>BAD</u>
To reduce the need to use pesticides on crops	43%	12%
To reduce the cost of fish, like salmon	21%	27%
To produce more affordable pharmaceutical drugs using plants	54%	8%
To produce more affordable pharmaceutical drugs using animals	23%	29%
To create peanuts that won't cause allergic reactions	42%	15%
To produce less expensive food to reduce hunger in world	52%	12%
To produce more affordable industrial compounds in plants	2%	17%
To create new types of grass that don't need to be mowed as often	39%	22%
To create fruits and vegetables that last longer on the store shelves	27%	30%
To produce beef with less fat	27%	32%
To expand our understanding of science and nature	46%	10%







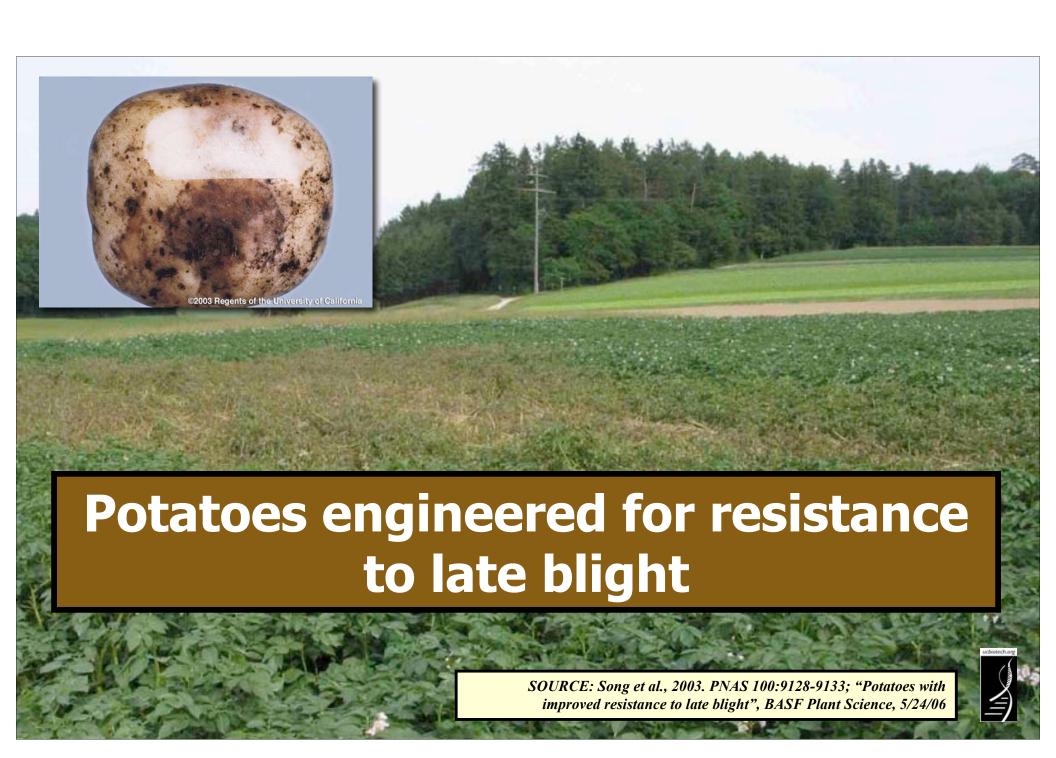
Traits to Improve Resistance to Pests



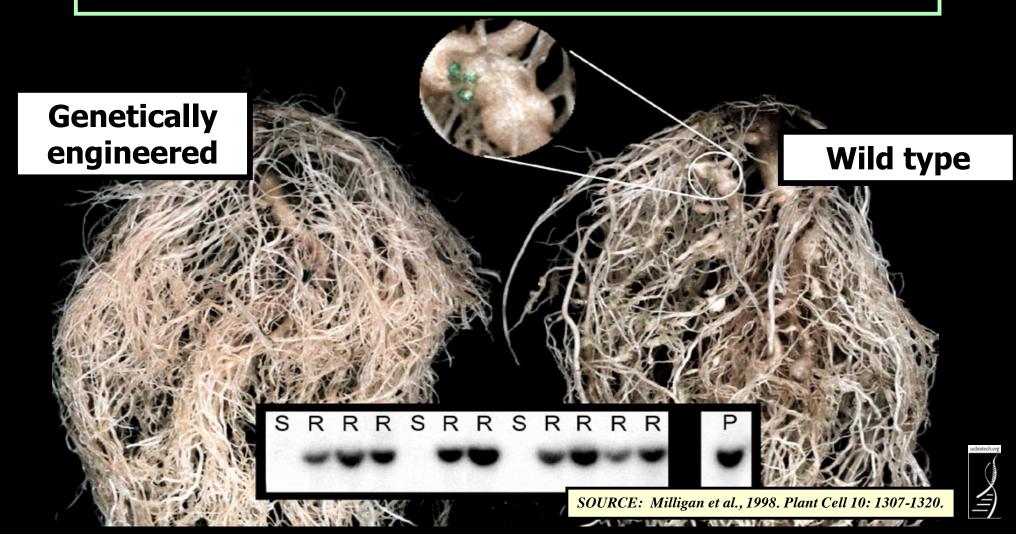


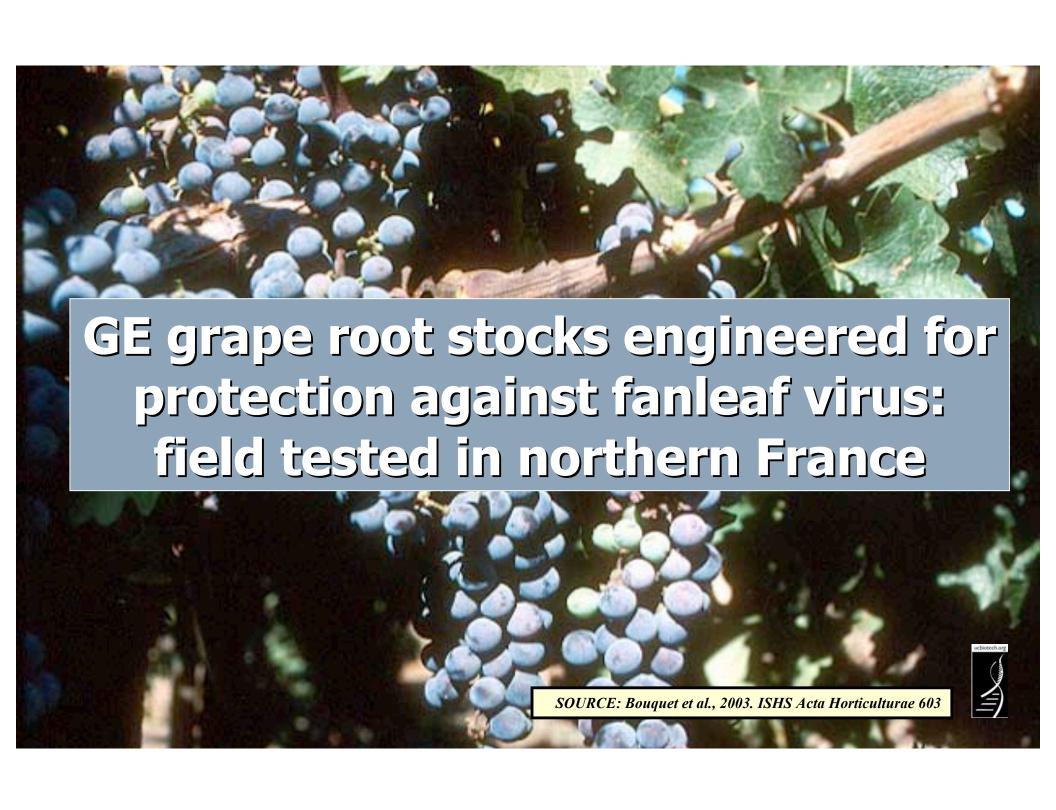


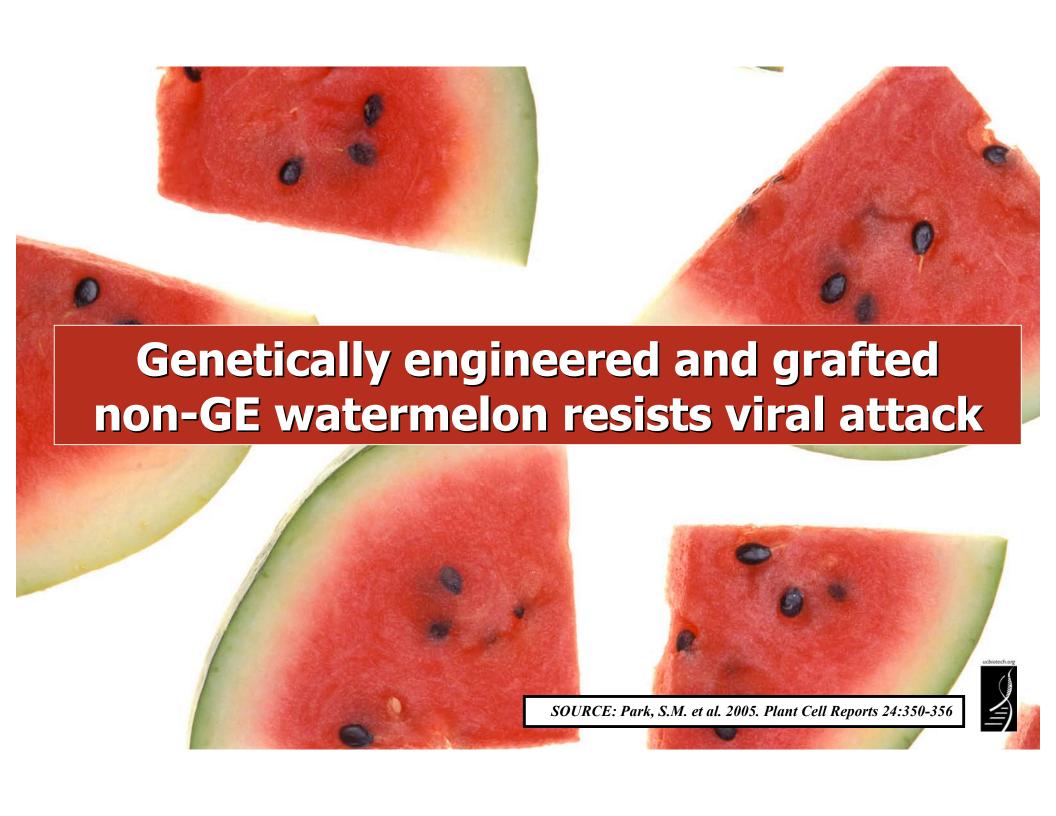




Tomato Mi gene protects against root knot nematode



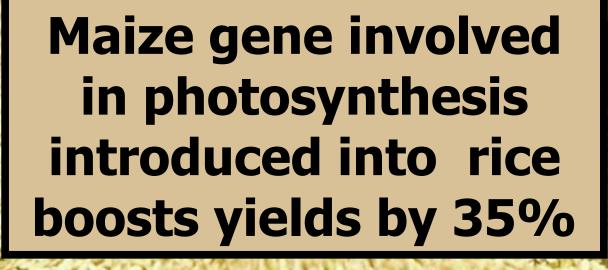






Traits to Improve Agronomic Performance







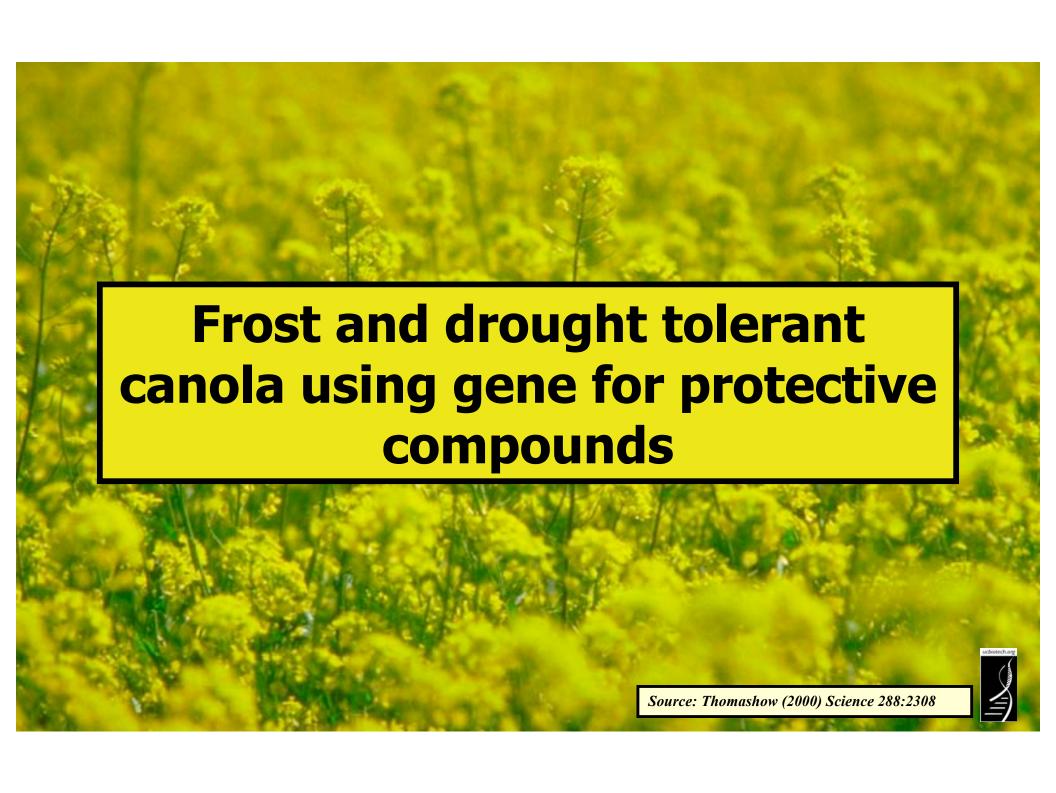




Traits to Improve Tolerance to Environmental Stresses...



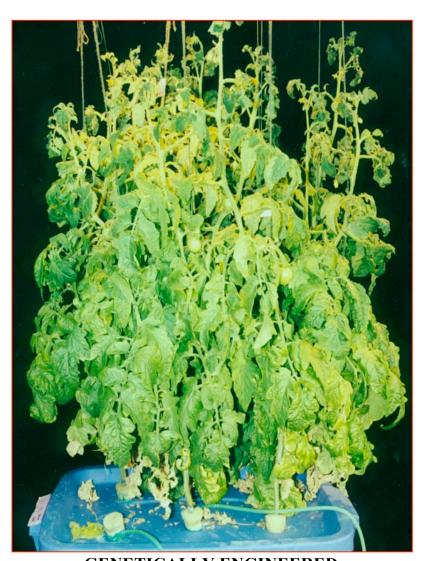




Salt-tolerant tomatoes



CONTROL



GENETICALLY ENGINEERED





Engineered eucalyptus root stock grows in acidic soil; pollen from nonengineered trunk does not spread transgenes

Drought-tolerant eucalyptus engineered in Chile



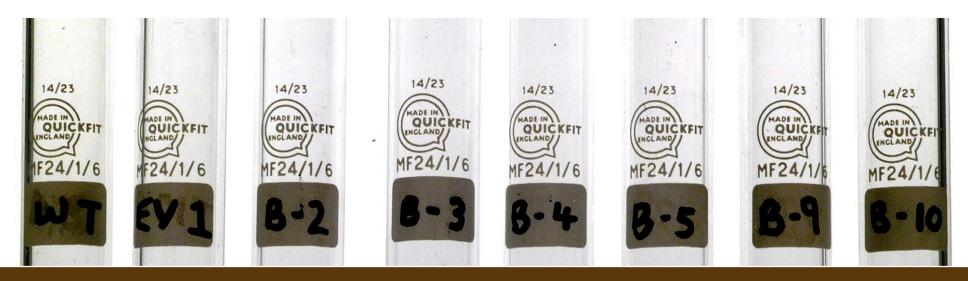


Traits to Improve Food and Feed





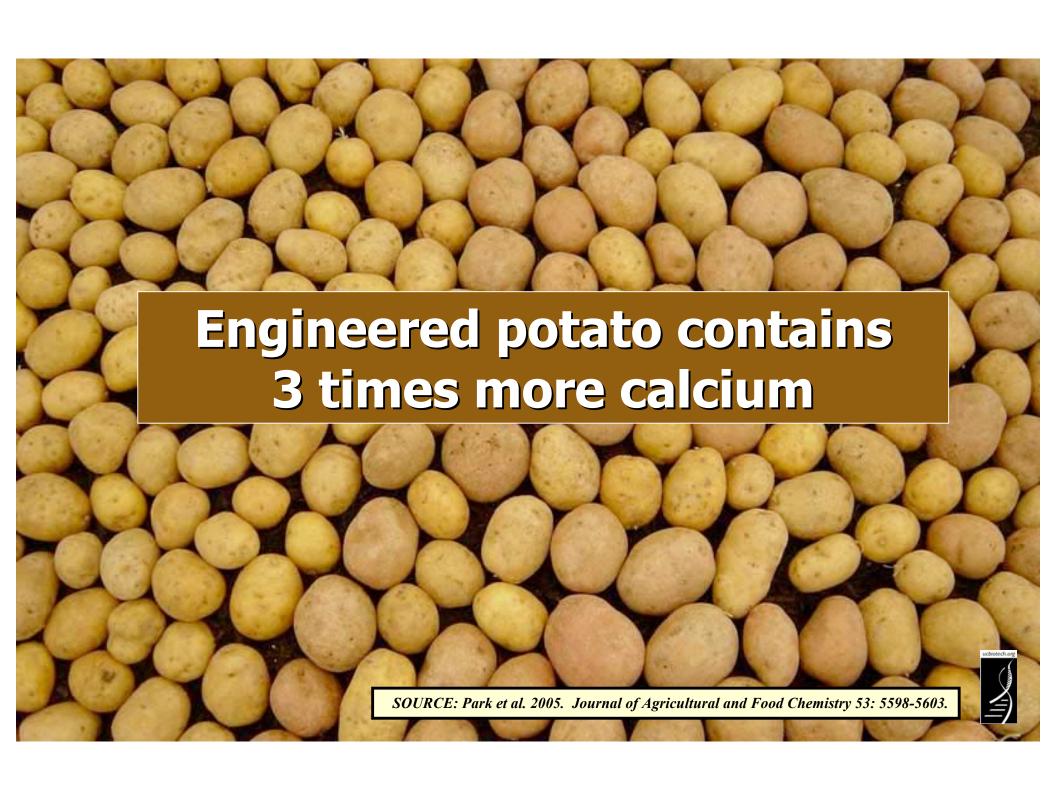


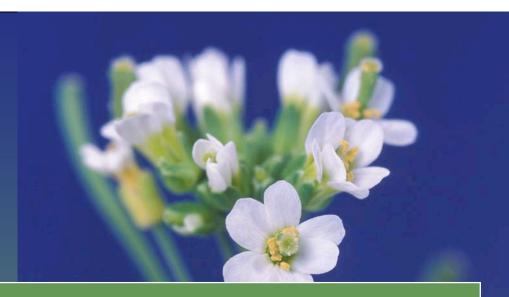


Scottish GE potato provides 30% of RDA of Vitamin A



SOURCE: Ducreux, L.J.M., et al., 2004. Journal of Experimental Botany 55: 975 - 982.

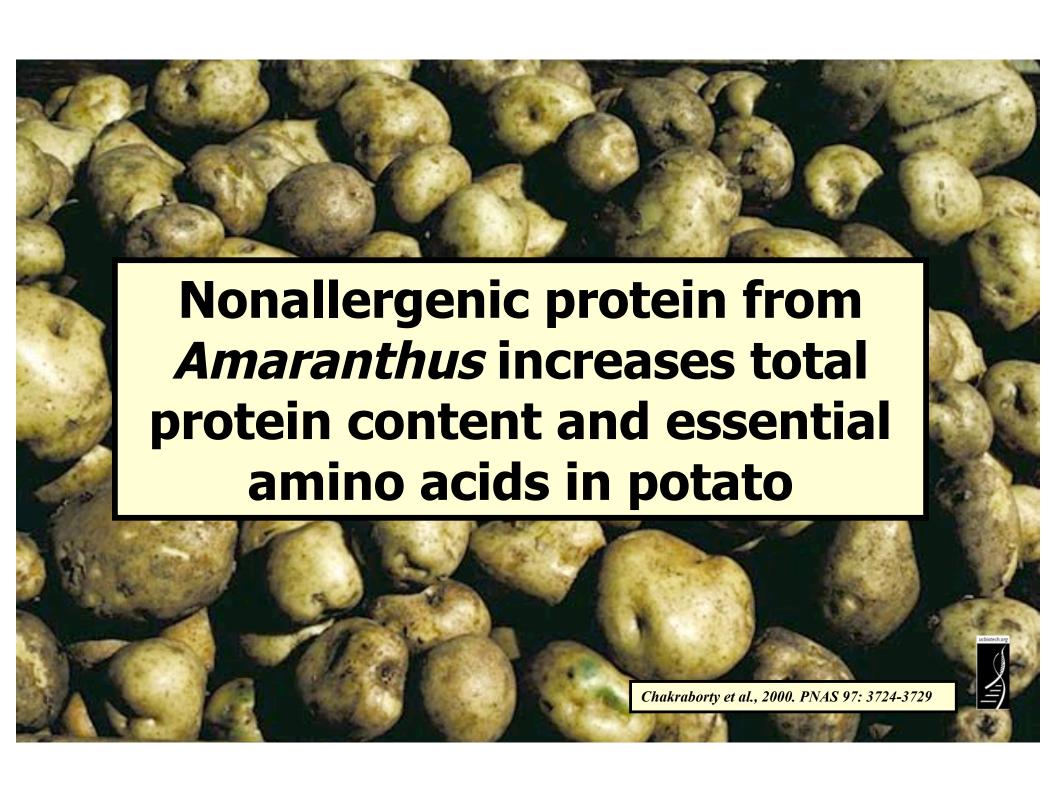




Introduction of single bacterial gene increases folate levels to levels comparable to spinach











Hypoallergenic wheat engineered for reduced allergen content









Traits with Medical Applications...



USDA approves plant-based vaccine against Newcastle Disease





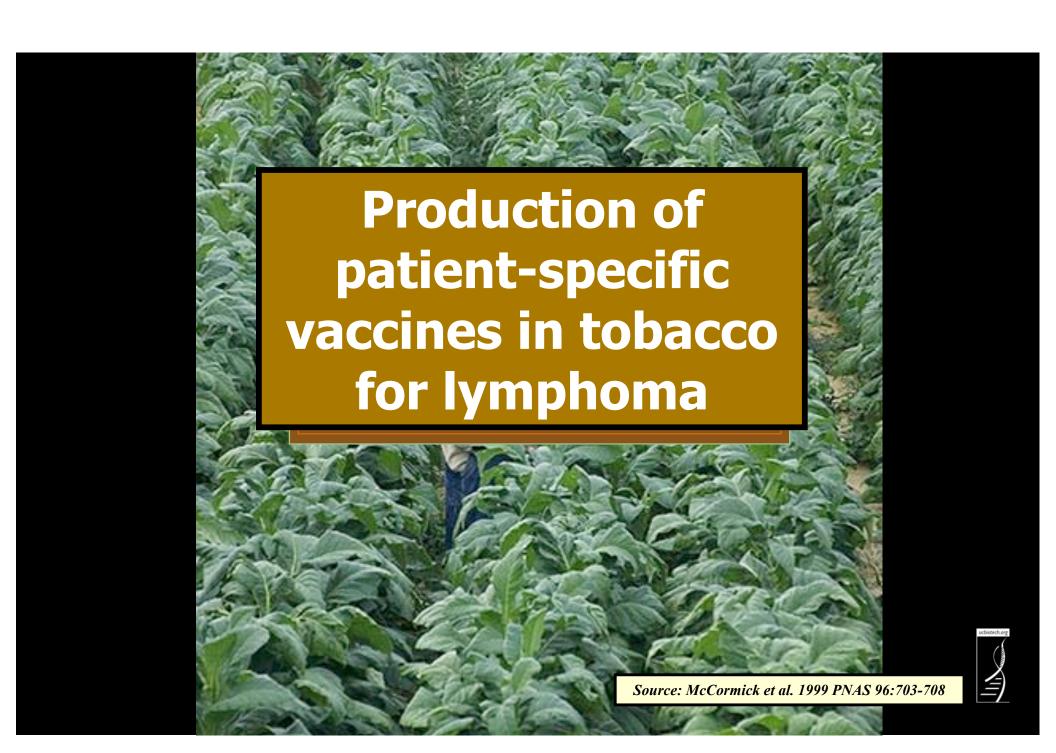


Plant subunit vaccine against pneumonic and bubonic plague orally immunogenic in mice



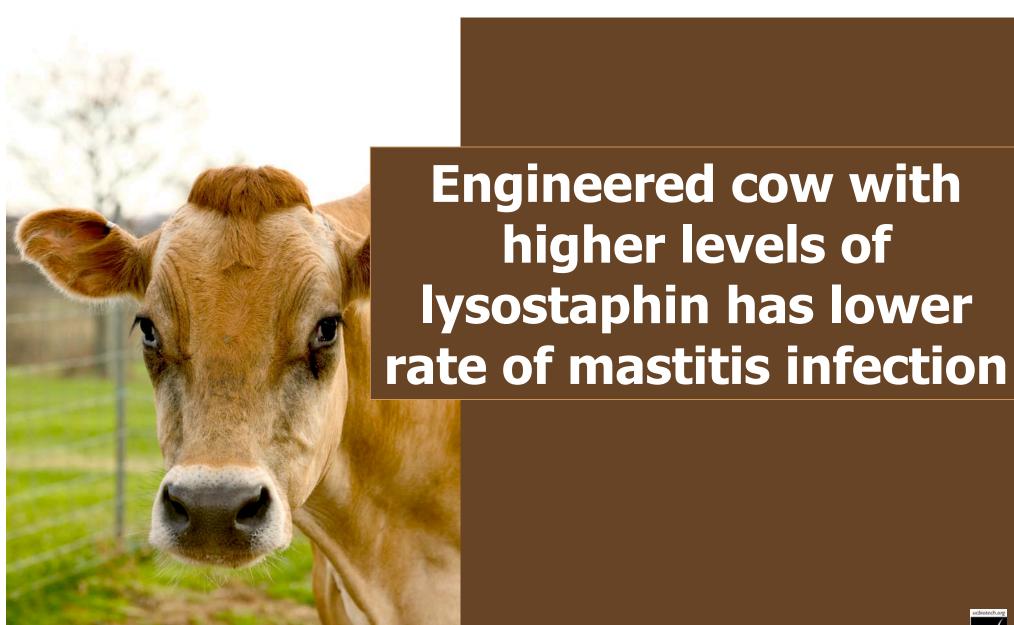






Rice seed-based edible vaccine for allergic diseases like asthma, seasonal allergies and atopic dermatitis





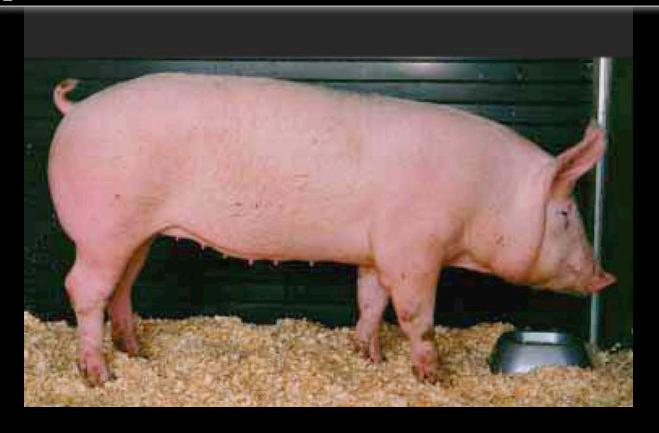


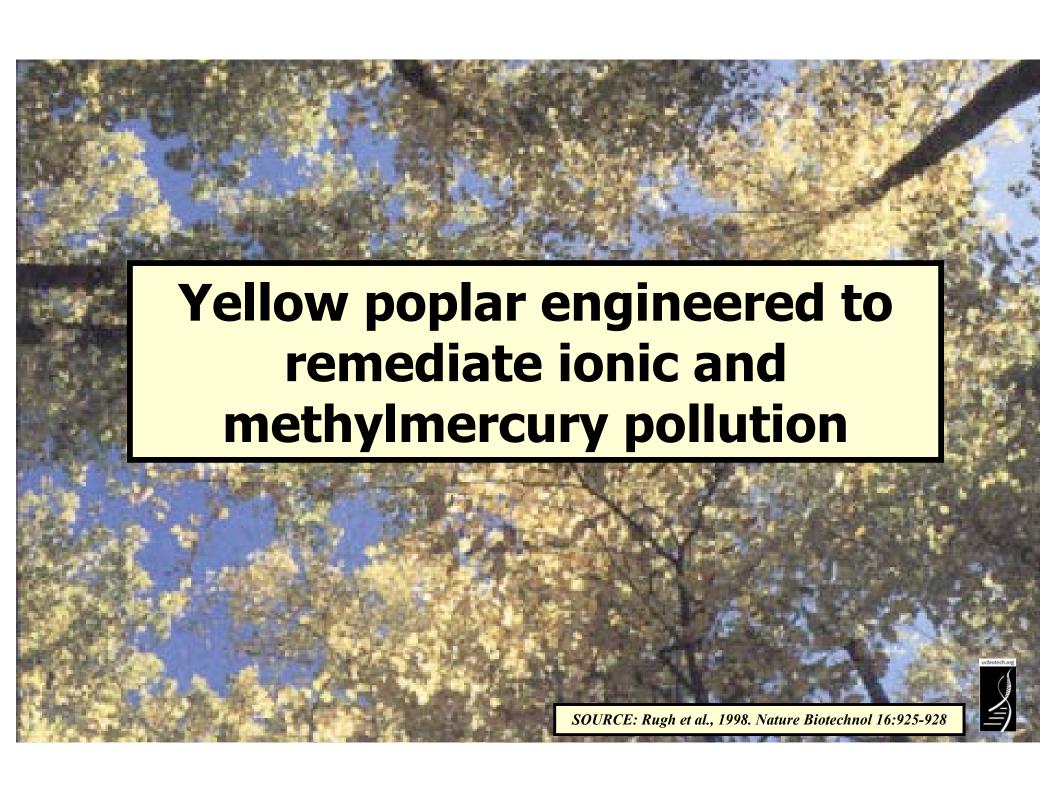


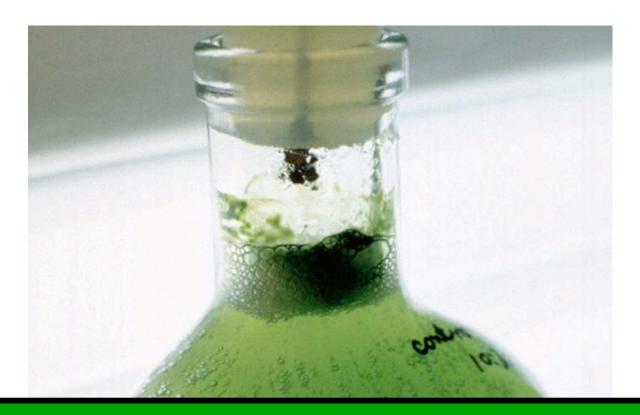
Traits to Improve the Environment...



Enviropig™ causes less phosphorus pollution to reduce environmental impact to lakes and estuaries

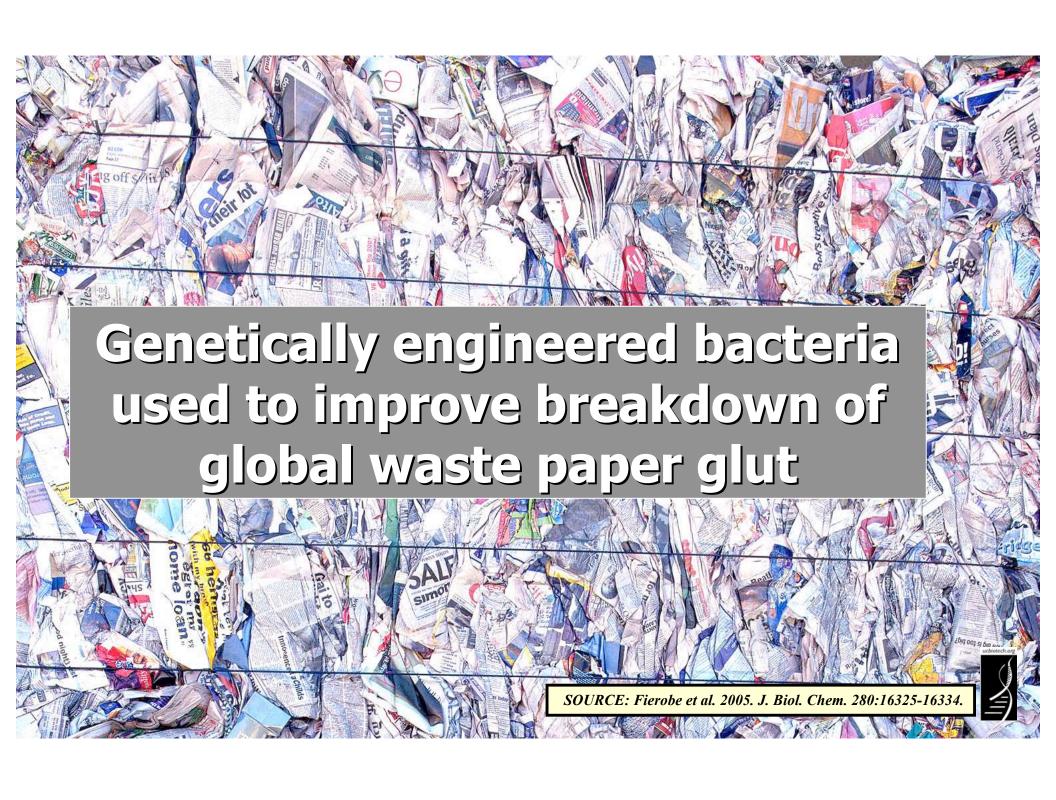






Green algae engineered to produce hydrogen gas — a renewable, clean fuel source











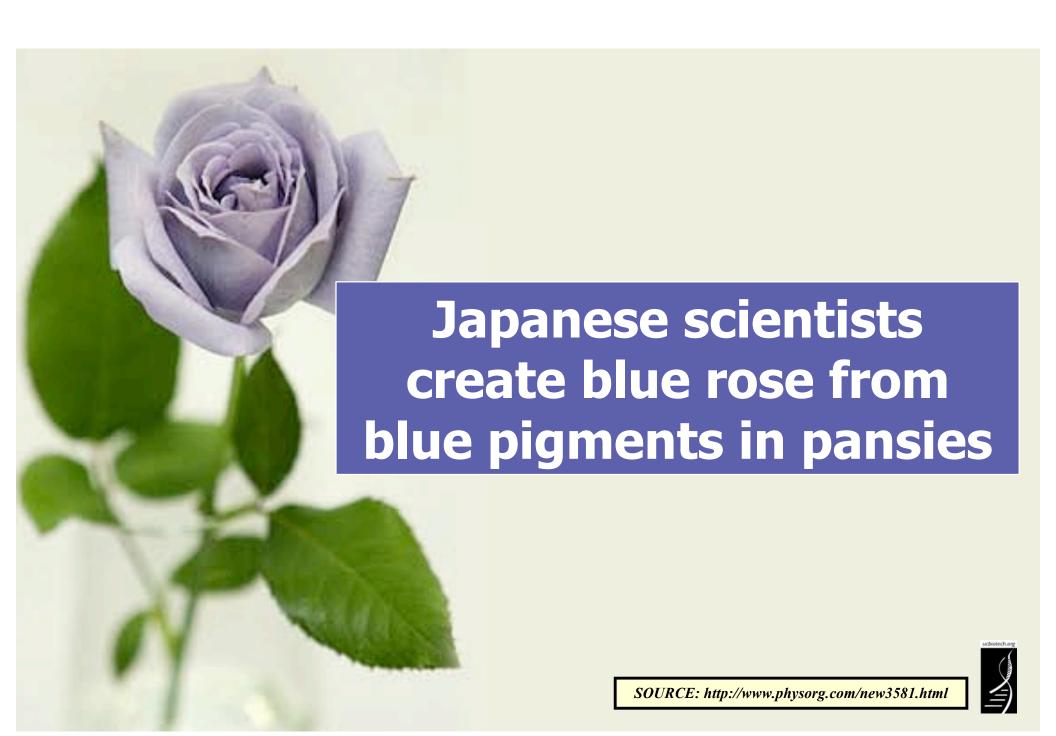




"GloFish: GE aquarium fish glow in the dark"







Delayed senescence Moonshadow™ carnation





