THE CENTER FOR GENOMIC GASTRONOMY

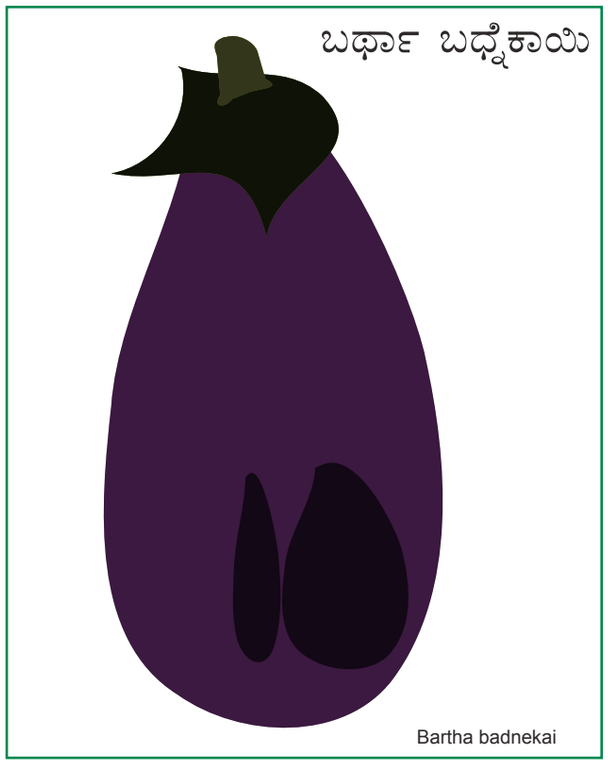
HOW TO EAT A GMO

(GENETICALLY MODIFIED ORGANISM)

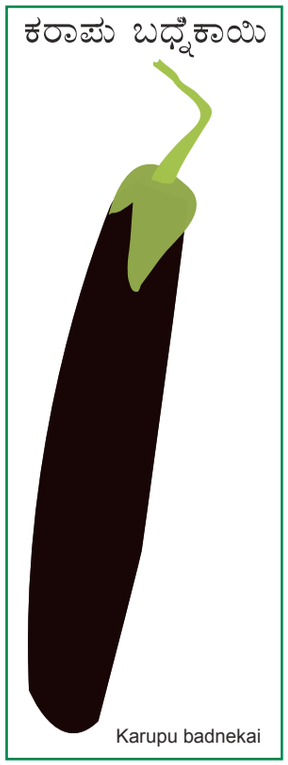
HOW TO EAT A GMO

1. VANISHING FOODS
2. NOT YET FOODS
3. FORGOTTEN FOODS
4. UNAVAILABLE FOODS

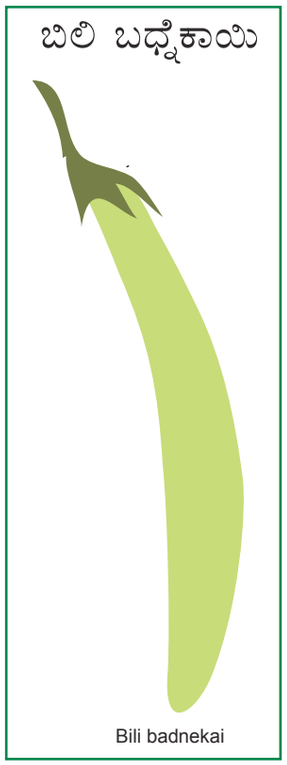
1. VANISHING FOODS



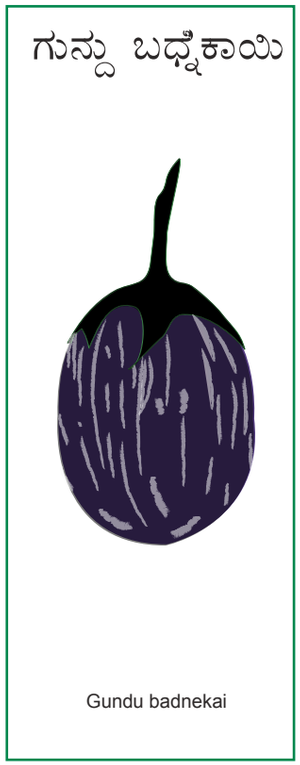
Bartha badnekai



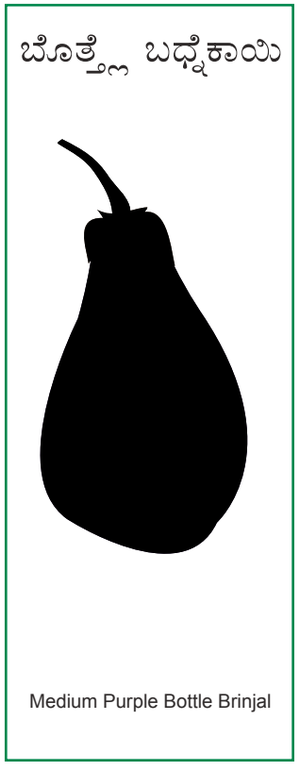
Karupu badnekai



Bili badnekai

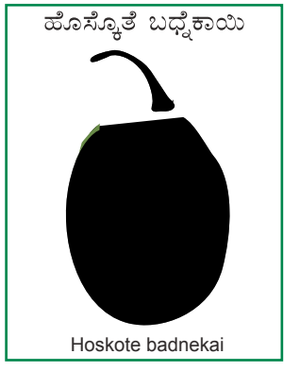


Gundu badnekai



Medium Purple Bottle Brinjal

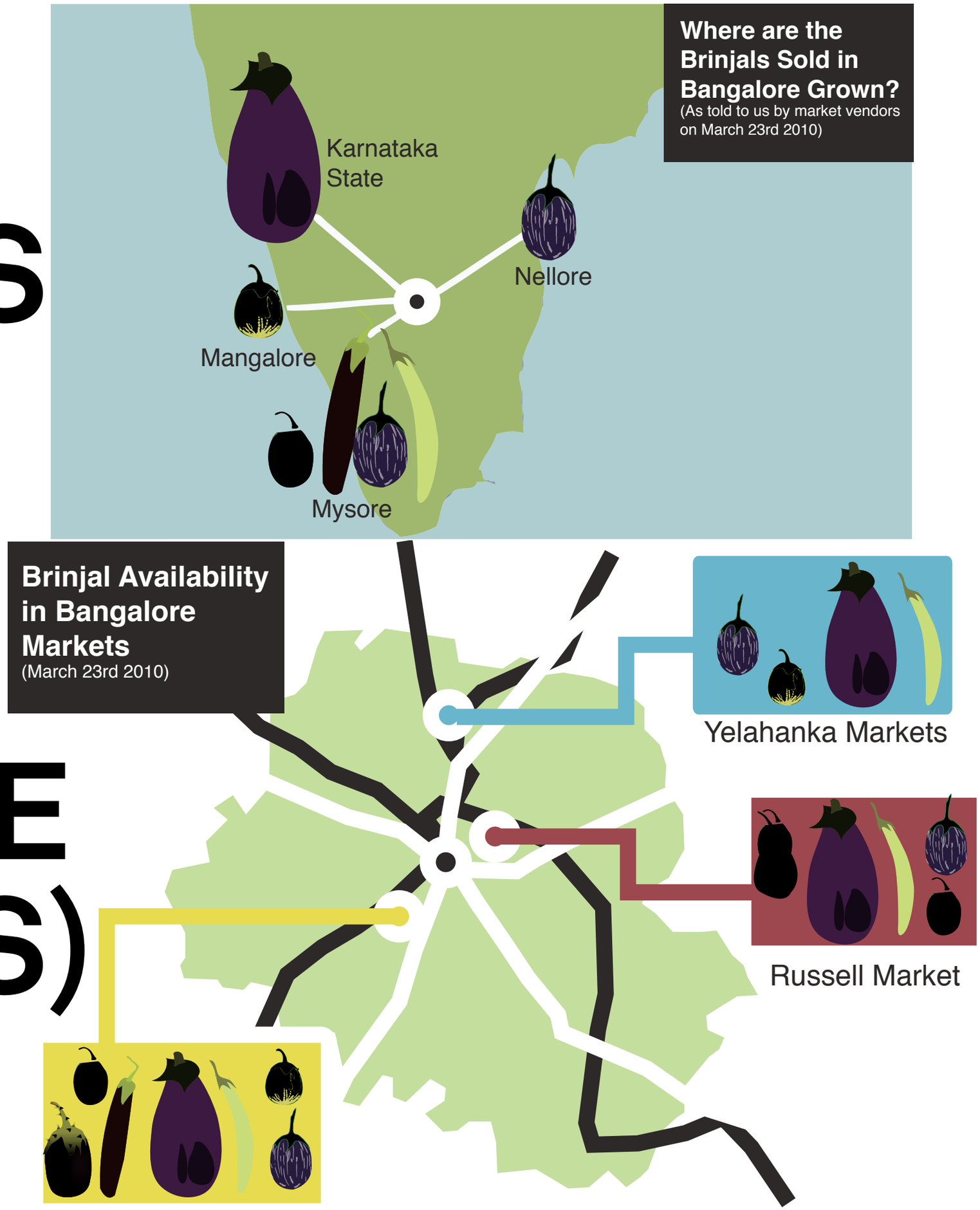
Mullu Badnekai



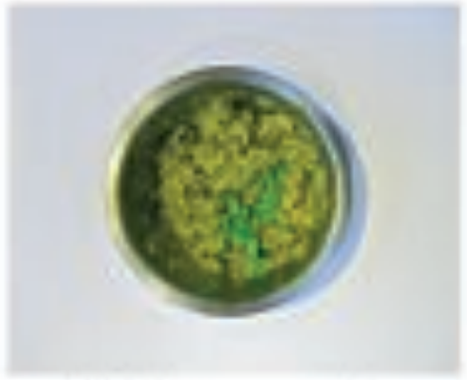
Hoskote badnekai

Matte Gulla

TASTE MATTERS (CULTURE MATTERS)



Bartha



Babaganoush

Chaat Brinjal

Gutti Vankaya Kura

Corny Brinal

Cheese Brinjal

Asian Gabrinjal Salad

Spring Eggplant Roll

Bread Brinjal Dhamaka

Peshawari Bharta Masala

Lemon Caramel
Candied Brinjal

Warm Brinjal Salad

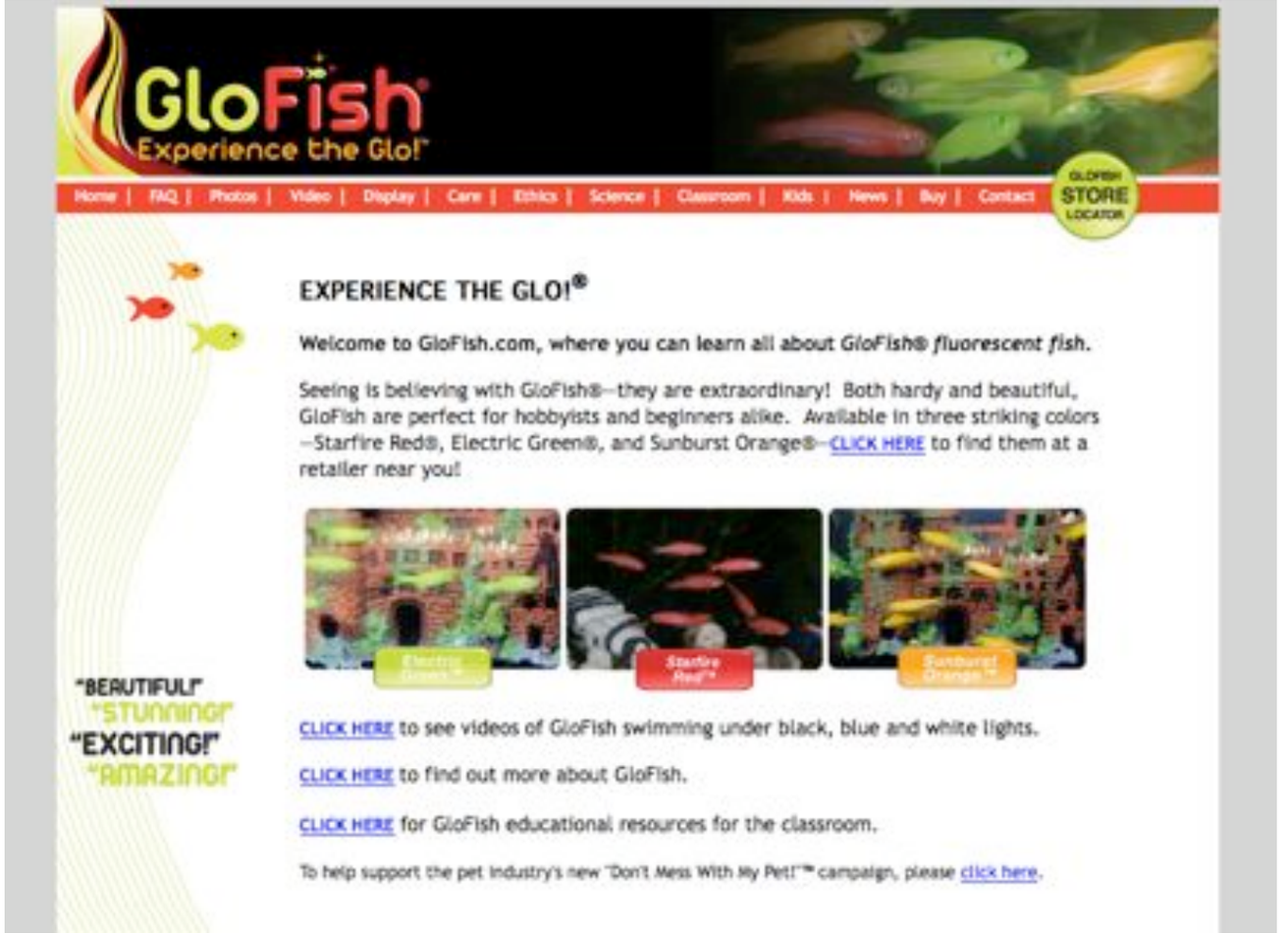
Carmasala

Vankeya Thokku

Brinjal 4-Way Cooking Competition Recipes

FOOD INNOVATION?

2. NOT YET FOODS




NOT-IN-CALIFORNIA ROLL
THE CENTER FOR GENOMIC GASTRONOMY
01


KRYPTONITE ROLL
THE CENTER FOR GENOMIC GASTRONOMY
02


STOP & GLOW ROLL
THE CENTER FOR GENOMIC GASTRONOMY
03

3. FORGOTTEN FOODS

MONDAY
6th January 2003
Text only

Science
GENE STORIES

GM FOOD

BBC Homepage
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What is genetic modification?

Genetic modification involves altering an organism's DNA. This can be done by altering an existing section of DNA, or by adding a new **gene** altogether.

A new gene can be added from one individual to another from the same species, e.g. tomato gene into another tomato plant, or between individuals from two different species, e.g. tomato gene into a fish.

It's possible to transfer genes from one species to another from plant to plant, from animal to plant, from plant to animal or from animal to animal. This is because all genes, no matter where they come from, are made of the same material - **DNA**.

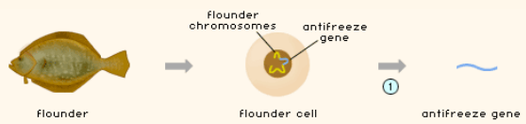
DNA

DNA contains the instructions needed for a living organism to grow and function.

How to add a fish gene to a tomato

Scientists have created a frost-resistant tomato plant by adding an antifreeze gene from a cold-water fish to it. The antifreeze gene comes from the cold-water flounder, a fish that can survive in very cold conditions. This is how it was done.

① The flounder has a gene to make an antifreeze chemical. This is removed from the chromosomes within a flounder cell.



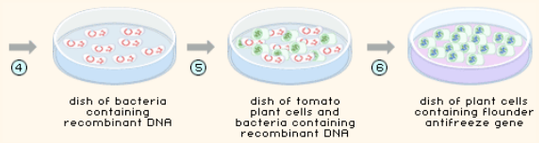
② The antifreeze DNA is joined onto a piece of DNA called a plasmid. This hybrid DNA, which is a combination of DNA from 2 different sources, is known as recombinant DNA.

③ The recombinant DNA, including the antifreeze gene, is placed in a bacterium.

④ The bacterium is allowed to reproduce many times producing lots of copies of the recombinant DNA.

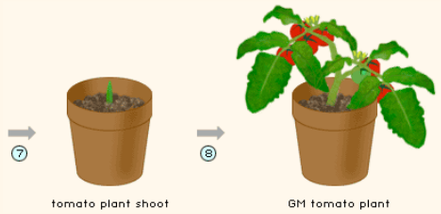
⑤ Tomato plant cells are infected with the bacteria. As a result, the antifreeze gene in the plasmid, in the bacteria becomes integrated into the tomato plant cell DNA.

⑥ Tomato cells are placed in a growth medium that encourages the cells to grow into plants.



⑦ Tomato plant seedling is planted.

⑧ This GM tomato plant contains a copy of the flounder antifreeze gene in every one of its cells. The plant is tested to see if the fish gene still works. Is it frost resistant? Yes it is.



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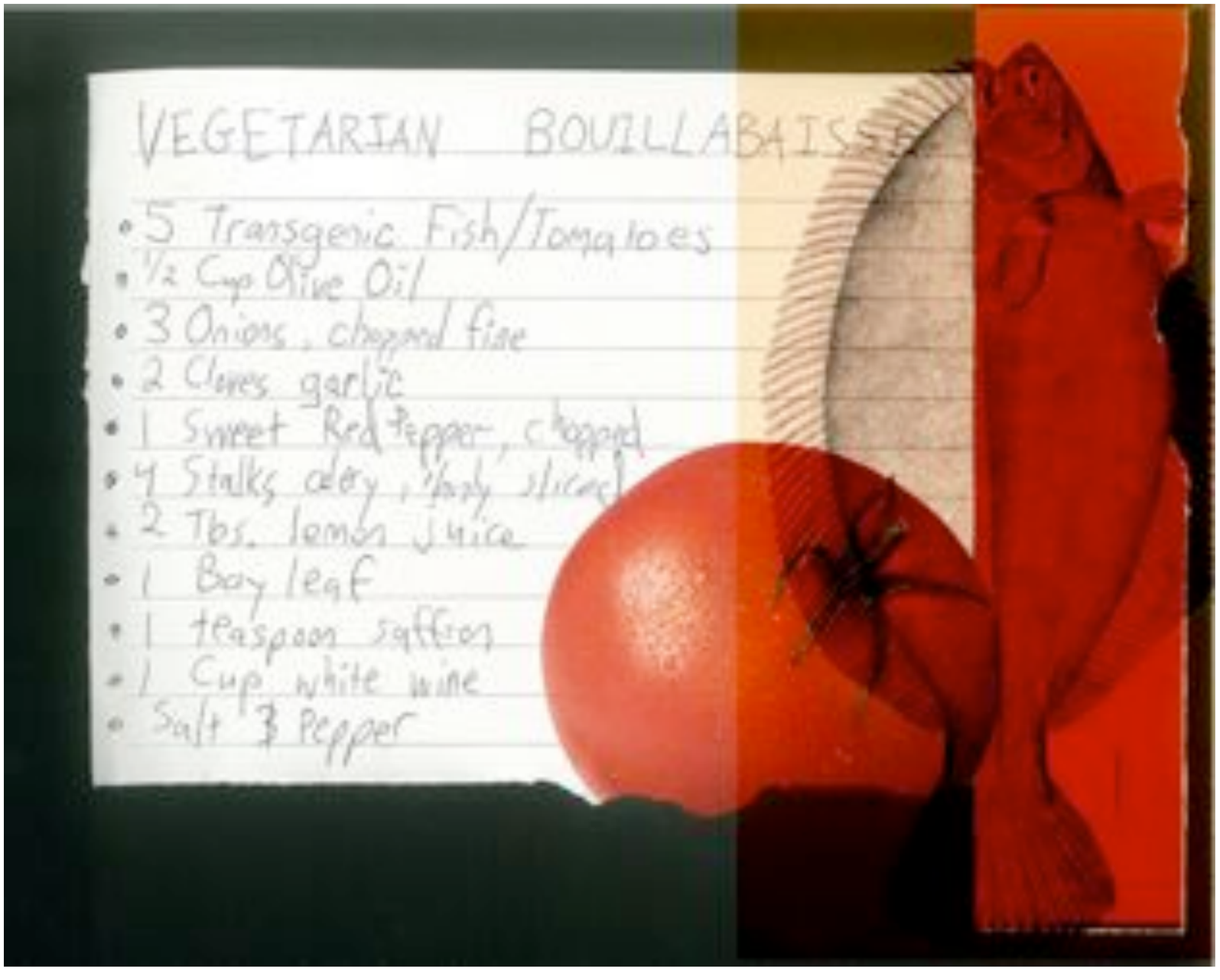
VEGETARIAN BOUILLABAISSE



containing recombinant DNA

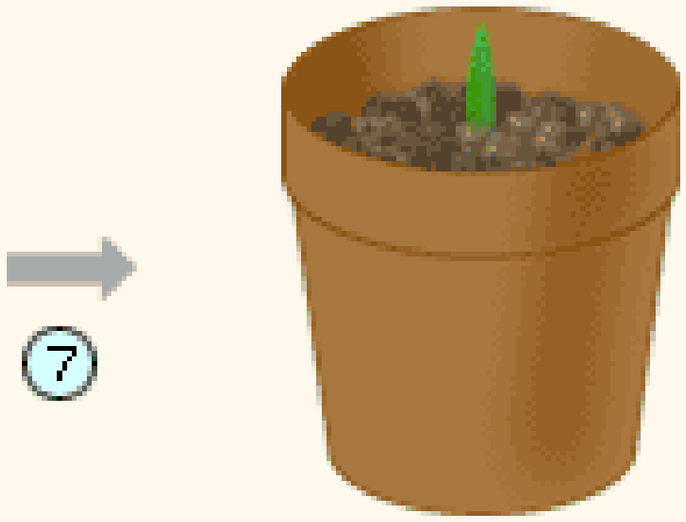
plant cells and bacteria containing recombinant DNA

containing flounder antifreeze gene

WE DEMAND ACCESS TO RESULTS & GOOD SCIENCE

7 Tomato plant seedling is planted.

8 This GM tomato plant contains a copy of the flounder antifreeze gene in every one of its cells. The plant is tested to see if the fish gene still works. Is it frost resistant? Yes it is.



tomato plant shoot

GM tomato plant

material - **DNA**.

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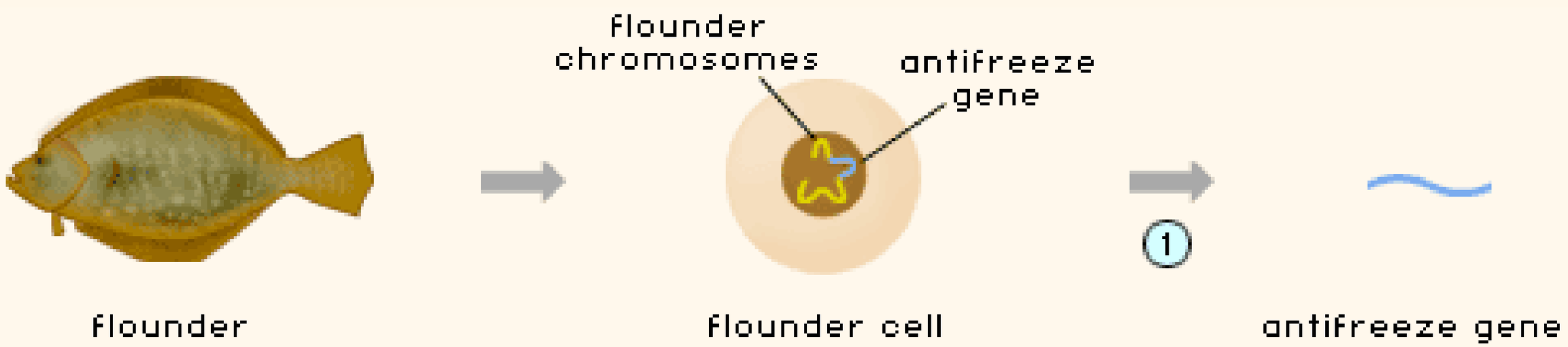
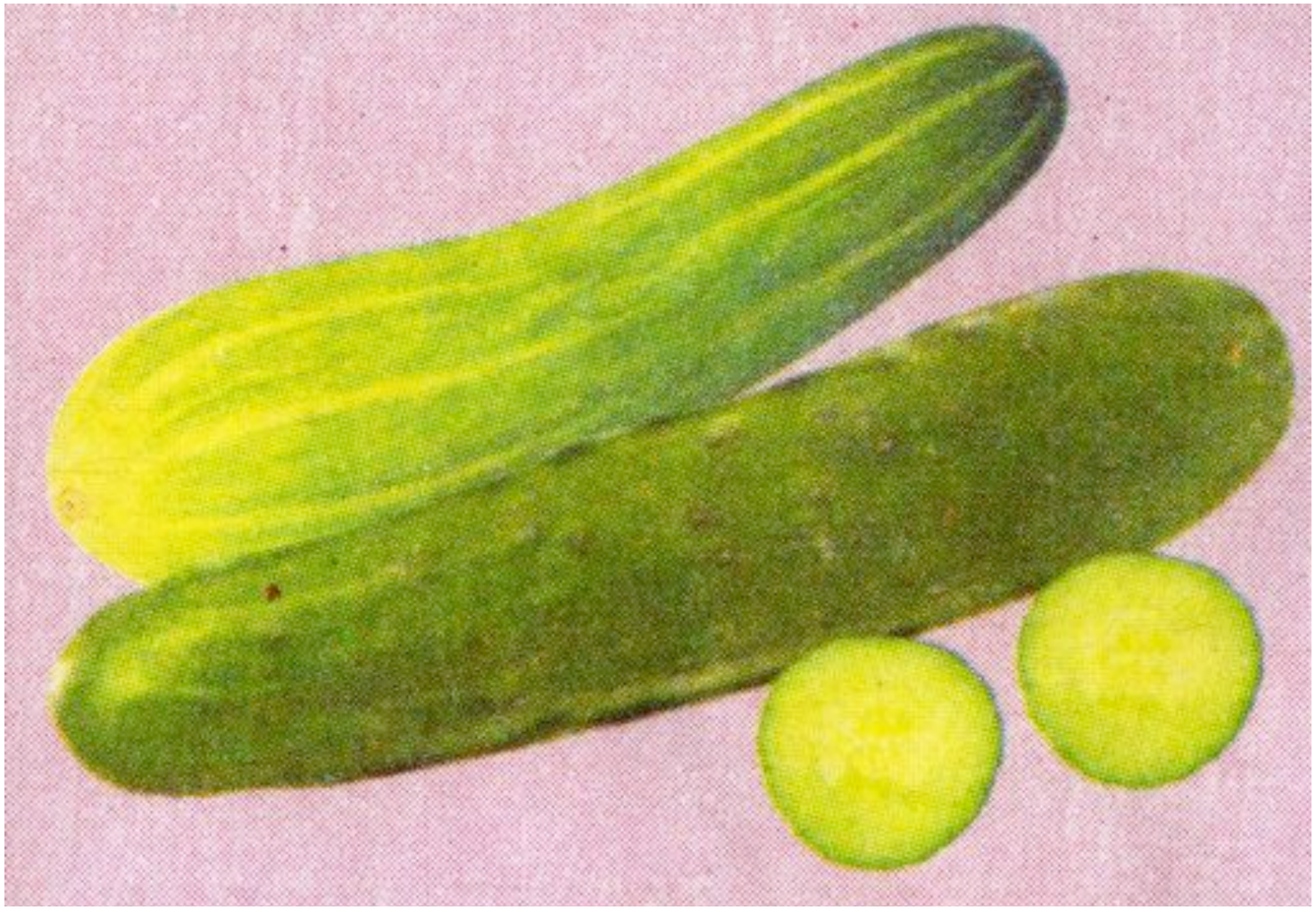


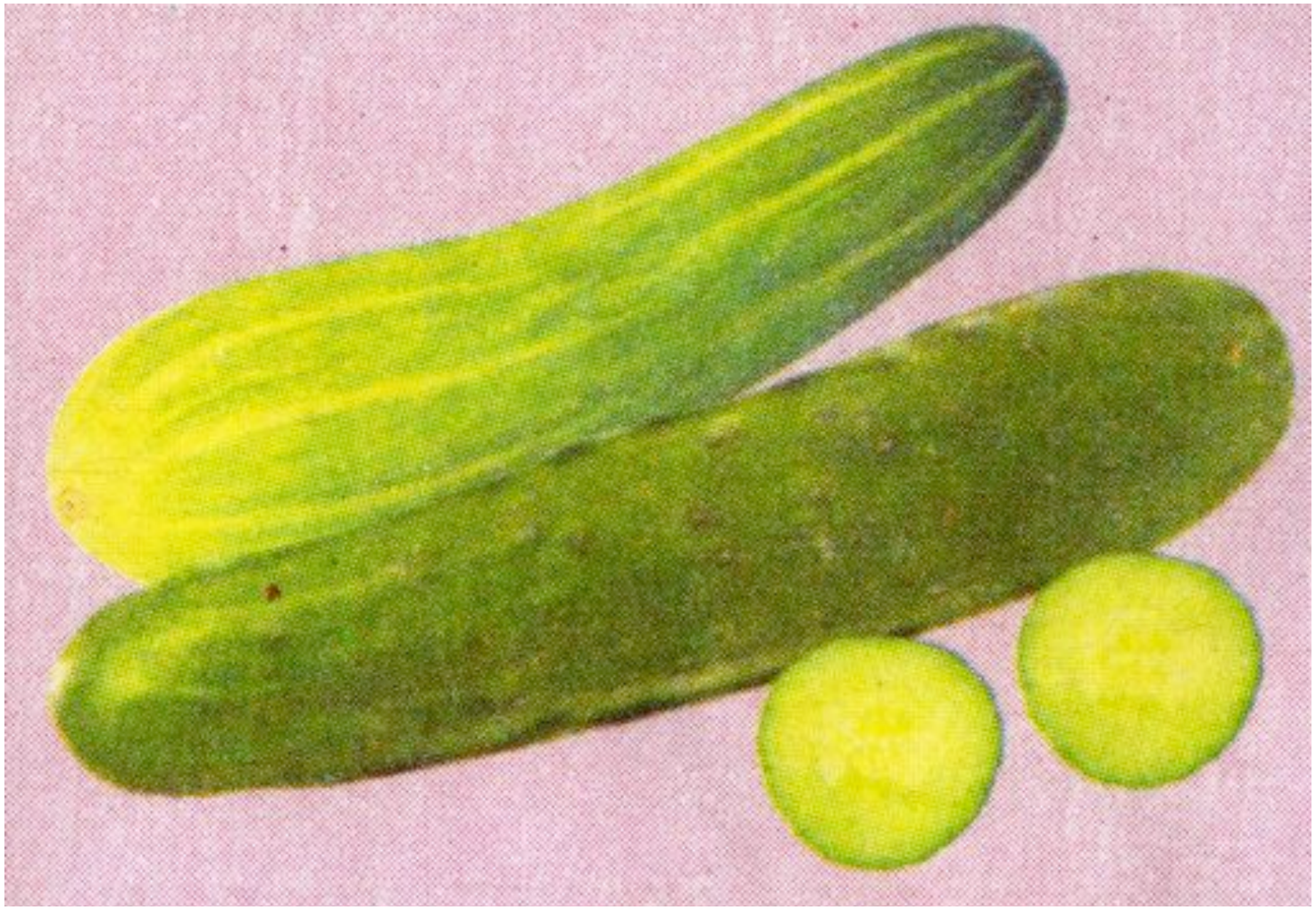
2. The antifreeze DNA is joined onto a piece of DNA called a plasmid. This hybrid DNA, which is a combination of DNA from 2 different sources, is known as recombinant DNA.

4. UNAVAILABLE FOODS



CUCUMBER B/PL/08/02-03

HYPER SWEET & SOUR PICKLES



CUCUMBER B/PL/08/02-03

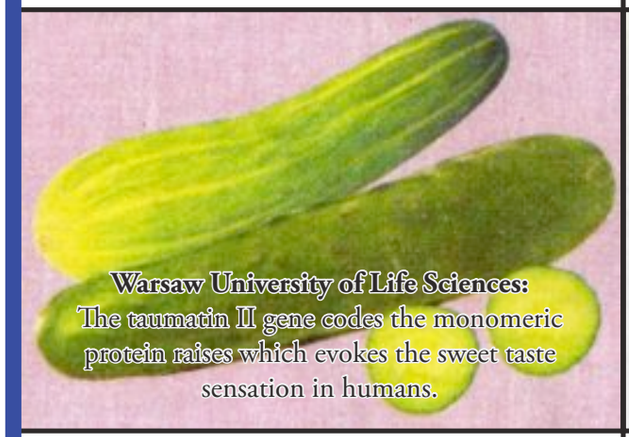
TRANSGENIC VEGETABLE & FRUIT
Field Test Applications in the European Union

Syngenta Seeds SAS:
expresses the CP4 EPSPS enzyme which confers tolerance to glyphosate herbicide.

BEET B/ES/10/22-CON

University of Catania, Facoltà di Agraria:
fungal resistance & kanamycin resistance

LEMON B/IT/04/03



Warsaw University of Life Sciences:
The taumatin II gene codes the monomeric protein raises which evokes the sweet taste sensation in humans.

CUCUMBER B/PL/08/02-03

Centro Nacional de Biotecnología:
Promoter HSP from soybean, gene promoting tuberization from potato, 35S terminator.

POTATO B/ES/10/14

Instituto Valenciano de Investigaciones Agrarias:
resistance to Plum Pox.

PLUM B/ES/05/14

SLU Swedish University of Agricultural Sciences:
RolB gene is from Agrobacterium rhizogenes and improves the rooting ability.

PEAR B/SE/09/12183

SOURCE: Deliberate Releases and Placing on the EU Market of Genetically Modified Organisms (experimental releases). Summary Notifications that have been submitted under Directive 2001/18/EC (e.g. after 17 October 2002)

European Commision Joint Research Centre - Institute for Health and Consumer Protection, Site managed by the Molecular Biology and Genomics Unit
http://gmoinfo.jrc.ec.europa.eu/gmp_browse.aspx

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