

## GENETICALLY MODIFIED FOODS

HUMANS HAVE BEEN ALTERING THE GENETIC MAKEUP OF PLANTS AND ANIMALS FOR 100s OF YEARS USING CONVENTIONAL BREEDING METHODS.



ABOUT 40 YEARS AGO, OTHER METHODS – CALLED GENE TECHNOLOGY – WERE DEVELOPED THAT ALLOW GENETIC MATERIAL (DNA) TO BE TRANSFERRED BETWEEN SPECIES THAT CAN'T INTERBREED, E.G. BACTERIA AND PLANTS.



FOOD PRODUCED FROM PLANTS OR ANIMALS THAT HAVE BEEN ALTERED USING GENE TECHNOLOGY IS CALLED GM FOOD.



## GM FOODS IN OUR FOOD SUPPLY

GM FOODS HAVE BEEN IN OUR FOOD SUPPLY FOR OVER 20 YEARS. ALL GM FOODS MUST BE ASSESSED AS SAFE AND APPROVED BY FSANZ BEFORE THEY CAN BE SOLD HERE.



FSANZ HAS APPROVED OVER 70 FOODS FROM 8 DIFFERENT CROP PLANTS BUT HAS YET TO RECEIVE A REQUEST TO APPROVE FOOD FROM A GM ANIMAL.

NOT ALL OF THE APPROVED GM FOODS ARE IN OUR FOOD SUPPLY, E.G. SOME ARE GROWN FOR ANIMAL FEED.

MOST APPROVED GM FOODS ARE PRODUCED OVERSEAS AND ENTER OUR FOOD SUPPLY AS INGREDIENTS IN IMPORTED PROCESSED FOODS (E.G. SUGAR, FLOUR, OILS, STARCH).

THERE ARE CURRENTLY NO FRESH GM FRUIT OR VEGETABLES IN OUR FOOD SUPPLY.

## GM FOODS SAFETY ASSESSMENT



FSANZ ASSESSES THE SAFETY OF GM FOODS BEFORE THEY ARE APPROVED FOR SALE. THIS ENSURES APPROVED GM FOODS ARE AS SAFE AS FOOD PRODUCED USING CONVENTIONAL BREEDING METHODS (CALLED CONVENTIONAL FOOD).

THE SAFETY ASSESSMENT APPROACH USED BY FSANZ WAS DEVELOPED BY INTERNATIONAL EXPERTS, INCLUDING FROM FSANZ, AND AGREED BY GOVERNMENTS ALL OVER THE WORLD.

ALL OUR SAFETY ASSESSMENTS ARE PUBLICLY AVAILABLE FOR COMMENT BEFORE A GM FOOD IS APPROVED.

MORE INFORMATION ABOUT OUR SAFETY ASSESSMENT APPROACH CAN BE FOUND ON OUR WEBSITE.



## “HEY WAITER, THERE’S DNA IN MY SOUP!”

DNA (GENETIC MATERIAL) IS FOUND IN MANY OF THE FOODS WE EAT AND IS A NORMAL PART OF OUR DIET.

DNA IS IN THE CELLS THAT MAKE UP PLANTS AND ANIMALS AND REMAINS IN THE LEAVES, ROOTS, GRAINS, NUTS, FRUIT, MEAT AND EGGS THAT ARE PRODUCED. THE MORE PROCESSED THE FOOD, THE LESS DNA WILL BE PRESENT.

ALL DNA, WHETHER IT’S FROM A GM FOOD OR A CONVENTIONAL FOOD, IS DIGESTED IN THE SAME WAY.







## LABELLING OF GM FOODS

WHEN A FOOD FOR SALE IS AN APPROVED GM FOOD OR CONTAINS AN APPROVED GM INGREDIENT, AND IT CONTAINS NOVEL DNA OR NOVEL PROTEIN, IT MUST BE LABELLED 'GENETICALLY MODIFIED'.

THIS LABELLING ALSO APPLIES IF THE GENETIC MODIFICATION HAS CHANGED A CHARACTERISTIC OF THE GM FOOD (E.G. CANOLA MODIFIED TO CONTAIN OMEGA-3 FATS SUCH AS DHA).



## GENOME EDITING



GENOME EDITING REFERS TO THE LATEST SET OF TECHNIQUES FOR ALTERING THE GENETIC MAKEUP OF PLANTS AND ANIMALS.

IT IS DIFFERENT TO GENE TECHNOLOGY METHODS BECAUSE IT "EDITS" (REMOVES OR RE-WRITES) PART OF THE PLANT'S OR ANIMAL'S OWN DNA.

THESE TYPES OF "EDITS" CAN ALSO BE MADE USING A CONVENTIONAL BREEDING METHOD CALLED MUTAGENESIS, BUT GENOME EDITING IS MORE PRECISE AND TARGETED, GIVING A LEVEL OF CONTROL THAT HAS NOT BEEN POSSIBLE BEFORE NOW.

FSANZ IS INVESTIGATING WHETHER FOOD PRODUCED USING GENOME EDITING (AND OTHER NEW BREEDING TECHNIQUES) SHOULD BE REGULATED LIKE GM FOOD.



## WE'RE CALLING FOR COMMENT

HAVE  
YOUR  
SAY!

FSANZ INVITES WRITTEN SUBMISSIONS ON THE  
ASSESSMENT OF THE FOLLOWING APPLICATIONS  
AND PROPOSALS BY 6PM (CANBERRA TIME)

### BY JANUARY 17

- A1167** to permit the use of lactase enzyme from *Bacillus subtilis* as a processing aid for use in dairy processing.
- A1155** to permit the voluntary use of 2'-FL and LNnT in infant formula and other products.

### BY JANUARY 20

- M1016** to consider varying certain maximum residue limits (MRLs) for residues of specified agricultural and veterinary chemicals that may occur in food commodities.

### BY JANUARY 31

- A1168** to permit the use of glucoamylase produced from a GM modified strain of *Aspergillus niger* as a processing aid.

As part of the assessment process of a new food, FSANZ undergoes public consultation. This is an example of the wording used.