- **Genetically modification organism** — an organism, which genotype were izmenyon by means of methods of gene engineering are artificial. Such changes, as a rule, was ma in the scientific or economic purposes.

- Principal view of genetic updating now are use of transgenes for creation of transgene organisms.

In the scientific purposes

•GMO was us in basic and applied scientific researches. With them the help investigated laws of development of some diseases, processes of aging and regeneration, functioning of nervous system are stud.

In the medical purposes

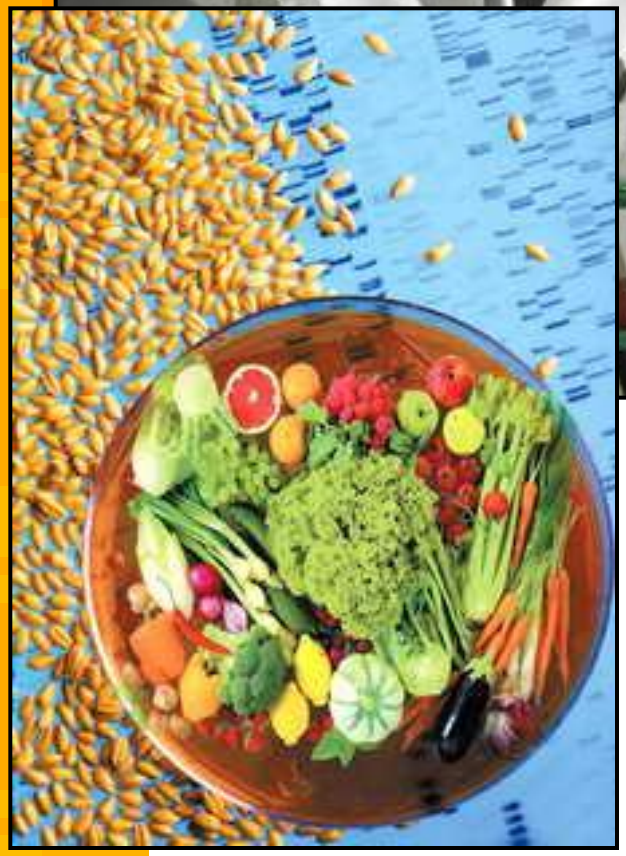
•GMO was us in applied medicine with 1982. In it to year the human insulin receiv by means of H'M bacteria are register as a medicine.

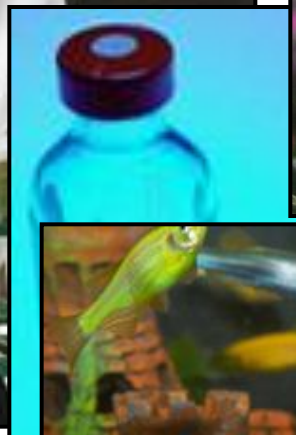
In agriculture

•The gene engineering are us for creation of new grades of the plants steady against adverse conditions of environment and wreckers, possess the best rostovymi and flavoring qualities. Creat new breeds of animals differed, in particular, the accelerat growth and efficiency. Grades and breeds products from which possessed high nutritional value was creat and contained the rais quantities of irreplaceable amino acids and vitamins.

Other directions of use

•The bacteria, capable to make non-polluting fuel was develop GM. In 2003 in the market there were GloFish — the first genetically modif organism creat with the esthetic purposes, and the first pet are more such.





- Actually, any confirm scientific research specif in risk of application of resolv GMP today are not present. H'M plants have pluses. For example, chemicals in them collected less, than in them natural analogs.
- Application H'M - products – chance to solve a problem of hunger on a planet at the expense of occurrence in agricultural crops of the new properties necessary for them of effective cultivation. One of important problems which transgenes could solve, - reception of the plants steady against viruses.
- One more problem are connect with protection of plants against insects wreckers.
- Gene engineers deduc transgene plants with the extend term of maturing of fruits. Such tomatoes, for example, can be remov with a bush red, without afraid that they will become overripe at transportation.

Whether transgene products was necessary to us?

- It are a question at issue. Supporters of GMP asserted that the gene engineering will rescue increasing population of the earth from the hunger, after all genetically modif plants could exist on less fertile soils and give a rich crop, and then long be stor.

- For many the question on gene engineering had moral character. Scientific interest genetikov on creation of such mutants, as, for example, the rabbit which were shining in the dark which had receiv from a jellyfish a gene pushed, responsible fluorescence. We considered, similar experiments by violence over the nature.

GM or usual products

- Uncontrollable consumption H'M products could have unpredictable consequences in the future. But completely to understand all risks of the use in food of transgene products, should pass some tens years and be replac some generations these products.

- More reliable than all to use in food domestic products. However, the person in the right to choose how to live and than to eat!

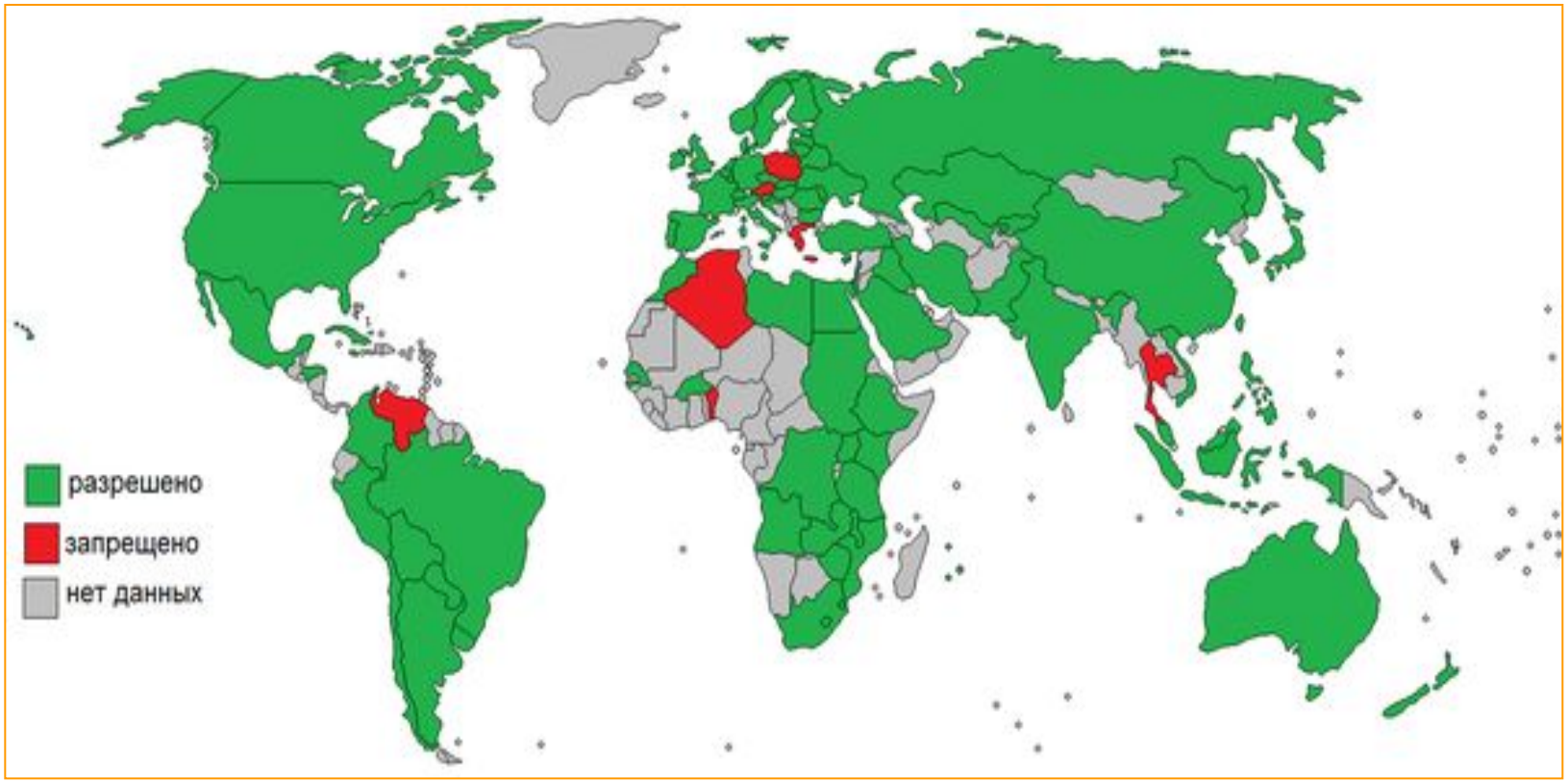
GM Products

Pro

- Decision of the food problems
- Economical use are more agricultural than grounds
- Reception of plants medicines, plants vaccines
- Stability of plants to viruses, illnesses, to wreckers
- High productivity transgene plants
- Stability to pollution
- Improvement of qualities grades of plants

Contra

- The conduct tests was short-term, influence could to be reflect in posterity
- Spontaneous carrying over alien genes from the transgene organisms in not transgene
- Occurrence of stability to insektitsidny toxin
- Defeat of the harmless insects
- Development of allergic reactions
- Possibility of occurrence mutations


разрешено
запрещено
нет данных

Even in the presence of the big set of contradictions and conflicts concerning manufacture H'M cultures the number of the states which are gr up transgene plants, constantly increased. If in 1996 agrarian biotechnologies appl in six countries, in 1998 — in nine, in 2000 — in thirteen, and in 2002 - in nineteen.

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