

1. Listen to the introductory part of the presentation and answer the questions.

- What is the topic of the presentation?
- What is the purpose of the presentation?
- How many main points will it have?
- What are they?

2. Fill in the gaps in the second part. Use the expressions from the list. Check with your partner, then listen and check again.

1-2 million - creation - produced - variety - types - was developed - dietary - available - in the picture - conducted - deficiency - 21st - 124 million - 500,000 - 118

Now let's start with _____ of golden rice. Golden rice is a _____ of rice, or *Oryza sativa* in Latin, which is _____ through genetic modification to biosynthesize the precursors of beta-carotene or pro-vitamin A in the edible parts of rice. Now you may ask why it's necessary to produce genetically modified rice. Well, golden rice _____ in the year 2000 as a fortified food to be used in areas where there is a shortage of _____ vitamin A. Now in 2005, a new variety called Golden Rice 2 was announced, this produces up to 23 times more beta-carotene than the original variety. Neither variety is currently _____ for human consumption. Here _____, you can compare all three _____ of rice. Normal rice is here – on the bottom right. Golden rice can be seen on the left and Golden Rice 2 is just at the top right end.

The research that led to golden rice was _____ with the goal of helping children who suffer from Vitamin A deficiency (VAD). Now I'd like you to look at this map, which shows the important vitamin A _____ areas in the world. These are in red on the map. The rest you can see just from the legend here.

Now at the beginning of the _____ century, _____ people, in _____ countries in Africa and South East Asia, were estimated to be affected by VAD. Now VAD is also responsible for _____ deaths, _____ that's half a million cases of blindness and millions of cases of xerophthalmia annually.

3. Decide which of the sentences are true and which are false (T/F). If they are false, explain why.

Children and women are at highest risk.

Some countries are going to introduce vitamin A supplementation programmes.

Rice was chosen because it is for many children a basic crop in these countries.

Golden rice is a cheap alternative to vitamin supplements.

4. List the positive aspects of GM rice production that are mentioned in the presentation.

5. Listen to the rest of the presentation and take down the arguments against GM rice and possible solutions to the problems involved.

arguments against

suggested solution

6. What is xerophthalmia? Make up the definition of the words listed here.

Xerophthalmia by a drying and of conjunctiva, and caused and by a characterized deficiency of disease A the wrinkling vitamin cornea.

7. Answer the question

- What were the reasons that led to the production of GM rice?

- How was Golden rice produced?

- What is the potential of GM rice?

8. Search the internet and find more information on Golden rice and/or other GM crops.

9. Go back to the first paragraph and find the expressions that can be used in any presentation. Then use the Power Point presentation (in IS) as a guideline to your own presentation.

