

Plant Outline:
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Problem

According to the World Health Organization (WHO), a common worldwide problem is that many people are having iron and zinc deficiencies (1/3 of the world's population).

Proposed Solution

Trace element nutrition in grown crops can improve people's nutrition. Using a gene gun, which can deliver exogenous DNA to cells, will help increase the amount of iron-binding protein in foods like rice and other foods that contain iron. A study that looks at an experiment done on rice shows that there was a 120% increase but is not sufficient enough for adults even if rice was consumed constantly in their diet but could be used for young children and infants. The study also looks at ferritin, which is a blood cell protein and was tested on rats. Ferritin is proven to have an increase of iron in adults.

Regulatory Issues

Ferritin in rice has a color change that could affect the attitude and allergic potential of the person consuming it. This does show that using a gene gun to implement nutrients in to a grown crop can increase levels of iron but only slightly.

Proposed Regulation

Continue testing what is the best type of protein to use in order to increase levels of iron in foods.

References

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