

## Scientists develop GMO rice with high levels of iron and zinc

A team of researchers led by Navreet Bhullar from the Institute of Molecular Plant Biology at ETH Zurich has genetically modified one of the most commonly grown varieties of rice. The advantage over the original variety is that these plants are better at mobilising their cellular stores of zinc and iron and depositing in the white part of the rice grain (known as endosperm). This means that the micronutrients are transported and concentrate there. The ETH researchers are the first to explore this aspect of cellular transport mechanisms of iron and zinc to enrich rice with micronutrients.

To achieve this enrichment, Bhullar and her team incorporated a genetic construct expressing a combination of three additional genes into the rice plants. One of these genes facilitates mobilisation of iron stored in the plant vacuoles, another encodes for an iron-storing protein Ferritin, and the third promotes efficient iron and zinc uptake by the roots.

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[T]he ETH researchers developed rice lines with iron increases equaling more than 90% of the recommended iron content and up to 170% of the recommended content for zinc in rice grains.

*Editor's note: Read the [full study](#)*

**Read full, original post:** [Transporting micronutrients more efficiently](#)