

Source: [KBe2020bio101refElements](#)

Symbiosis with plants to make Nitrogen

Plants have bacteria that turn N_2 into NH_3 . The bacteria has a enzyme called nitrogenase.

So much fossil fuels are used in the fertilizer industry to do the same conversion. Why can't we just use the enzyme to make a bioreactor? The enzymes don't actually work with oxygen around. So how can plants create a low oxygen environment in their root systems? It turns out that the root nodules of the plants make leghemoglobin to soak up the oxygen. Impossible foods found the gene in the plant and put it in yeast, which is what makes it taste like meat.

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