

# Deficiencies and toxicities

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Rice crops need to have the optimum nutritional balance.

Macroelements are needed by plants in large amounts. These are carbon, hydrogen, oxygen, nitrogen, phosphorus, potassium, calcium, magnesium, and sulfur.

While microelements are only needed in lesser quantities, often in trace amounts. These are iron, manganese, copper, zinc, molybdenum, boron, and chlorine.

If rice crops have more or less than the required amount of nutrients, the yield can be greatly affected.



If you have a problem in your field and you're not sure what it is, go to the [Rice Doctor](#)

The following are mineral and nutritional deficiencies and toxicities common in rice crops:

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## [Boron \(B\) deficiency](#)



## [Boron \(B\) toxicity](#)



## [Calcium \(Ca\) deficiency](#)



## [Copper \(Cu\) deficiency](#)



## [Iron \(Fe\) deficiency](#)

## [Iron \(Fe\) toxicity](#)





[Magnesium \(Mg\) deficiency](#)



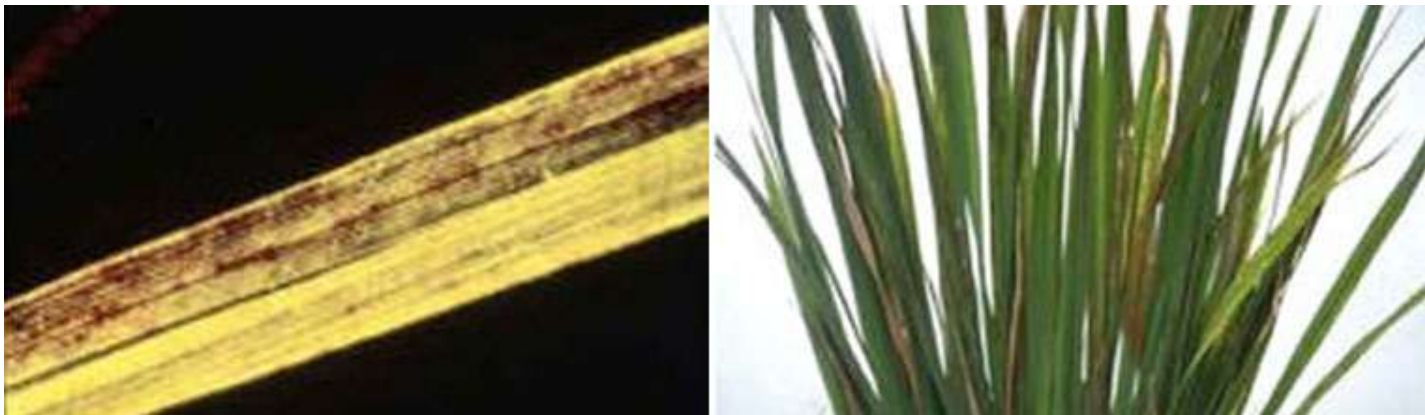
[Manganese \(Mn\) deficiency](#)



[Manganese \(Mn\) toxicity](#)



[Nitrogen \(N\) deficiency](#)



[Nitrogen \(N\) excess](#)



[Phosphorus \(P\) deficiency](#)





[Potassium \(K\) deficiency.](#)



[Sulfide toxicity.](#)



[Zinc \(Zn\) deficiency.](#)



[Silicon \(Si\) deficiency.](#)

[Sulfur \(S\) deficiency.](#)



[Alkalinity.](#)





[Aluminum \(Al\) toxicity.](#)



[Herbicide toxicity.](#)

