

Fertilizing Crops to Improve Human Health

Countries are implementing successful partnerships worldwide to develop macro and micronutrient fertilization

Zn B S

India

Up to four times higher yields for smallholder farmers

In Karnataka State, through the Bhoochetana government program in partnership with ICRISAT, fertilizers were biofortified with zinc, boron and sulphur. Yields for rainfed crops increased up to 345% with sunflower, 230% ragi, 240% groundnut, 150% maize, 116% soybean and 27% sorghum.



Se

Finland

Combating heart disease

From 1984, the government mandated the addition of selenium to all multi-nutrient fertilizers in order to help combat heart disease.



I

China

Eradicating Iodine deficiencies through fertigation

Adding potassium iodate to irrigation canal water in Xinjiang province resulted in a three-fold increase in soil iodine levels, a 50% reduction in infant mortality and an almost total elimination of iodine deficiency disorders in the area.




Zn Cu Mo

Turkey, India, Australia & South Africa

More grain nutrients and production in semi-arid regions

Zinc deficiency in wheat often occurs when water supplies to soil are impaired due to limited precipitation and irregular distribution of rainfall. Maintaining a high amount of plant available Zn in soil in semi-arid regions contributes to grain Zn concentration and also better grain yield. Over 8 million ha of land in southern Australia were brought into grain and the pasture production in the 1950s after recognising that micronutrient deficiencies were a major constraint to profitable yields.



Se

Australia & New Zealand

Functional foods: selenium enhanced

Biofortifying wheat with selenium fertilizers helps enhancing nutrient levels and market the wheat as a with likely human health benefits. Broccoli is one of the most promising anti-cancer foods.




- B**
Boron
- Cu**
Copper
- I**
Iodine
- Mo**
Molybdenum
- Se**
Selenium
- S**
Sulphur
- Zn**
Zinc



Smart fertilization practices provide the necessary micronutrients for healthy plants and balanced human nutrition

