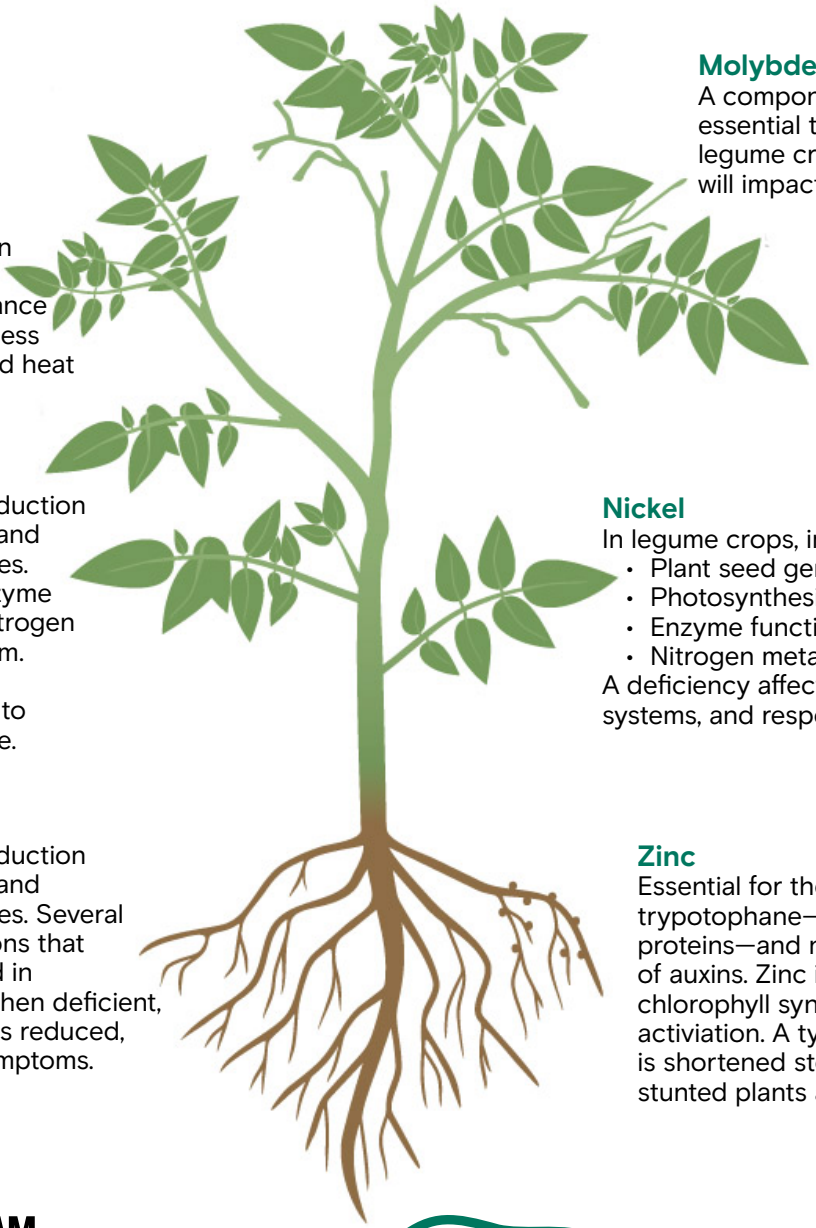
How plants use 8 essential micronutrients

Boron
Boron is required for cell wall structure and cell expansion. It's also important for cell membrane stability. Boron deficiency disrupts reproductive growth, shoot and root growth, and pollen viability which influences seed set and yield. Boron deficiency can result in deformed leaves and poor quality product.



Manganese
Involved in:
- Photosynthesis
- Enzyme activation
- Respiration
- Nitrogen assimilation

Defieciences can cause weaker structural resistance against pathogens and less tolerance to drought and heat stress.

Molybdenum
A component of enzyme nitrogenase essential to nitrogen fixation in legume crops. Lack of molybdenum will impact plant growth.

Chlorine
Involved in photosynthesis and needed for osmotic and ion charge balance. It can help minimize water loss during stressful dry periods.

Copper
Involved in oxidation-reduction reactions in respiration and photosynthesis processes. Plays a role in many enzyme activities as well as in nitrogen and hormone metabolism. Deficiencies can lead to increased susceptibility to diseases and crop failure.

Nickel
In legume crops, important in:
- Plant seed germination
- Photosynthesis
- Enzyme functions
- Nitrogen metabolism

A deficiency affects plant growth, antioxidant systems, and response to stress.

Iron
Involved in oxidation-reduction reactions in respiration and photosynthesis processes. Several enzymatic transformations that require iron are involved in chlorophyll synthesis. When deficient, chlorophyll production is reduced, resulting in chlorosis symptoms.

Zinc
Essential for the synthesis of trypotophane—a component of some proteins—and needed for the production of auxins. Zinc is also involved in chlorophyll synthesis and enzyme activiation. A typical deficiency symptom is shortened stem internodes resulting in stunted plants and rosetted leaves.

20 MULE TEAM BORAX™

agriculture.borax.com