

From, Availability and mobility of macro and micronutrient in soil and plant

1. Macronutrients: used in large quantities by the plant
 - a. Structural nutrients: C, H, O
 - b. Primary nutrients: N, P, K
 - c. Secondary nutrients: Ca, Mg, S
2. Micronutrients: used in small quantities by the plant
 - a. Fe, B, Cu, Cl, Mn, Mo, Zn, Co, Ni

Nutrient	Macro/micro	Uptake form	Mobility in Plant	Mobility in Soil
Carbon	Carbon Macro	CO ₂ , H ₂ CO ₃		
Hydrogen	Hydrogen Macro	H ⁺ , OH ⁻ , H ₂ O		
Oxygen	Macro	O ₂		
Nitrogen	Macro	NO ₃ ⁻ , NH ₄ ⁺	Mobile	Mobile as NO ₃ ⁻ , immobile as NH ₄ ⁺
Phosphorus	Macro	HPO ₄ ²⁻ , H ₂ PO ₄ ⁻	Somewhat mobile	Immobile
Potassium	Macro	K ⁺	Very mobile	Somewhat mobile
Calcium	Macro	Ca ²⁺	Immobile	Somewhat mobile
Magnesium	Macro	Mg ²⁺	Somewhat mobile	Immobile
Sulfur	Macro	SO ₄ ⁻	Mobile	Mobile
Boron	Micro	H ₃ BO ₃ , BO ₃ ⁻	Immobile	Very mobile
Copper	Micro	Cu ²⁺	Immobile	Immobile
Iron	Micro	Fe ²⁺ , Fe ³⁺	Immobile	Immobile
Manganese	Micro	Mn ²⁺	Immobile	Mobile
Zinc	Micro	Zn ²⁺	Immobile	Immobile
Molybdenum	Micro	MoO ₄ ⁻	Immobile	Somewhat mobile
Chlorine	Micro	Cl ⁻	Mobile	Mobile
Cobalt	Micro	Co ²⁺	Immobile	Somewhat mobile
Nickel	Micro	Ni ²⁺	Mobile	Somewhat mobile