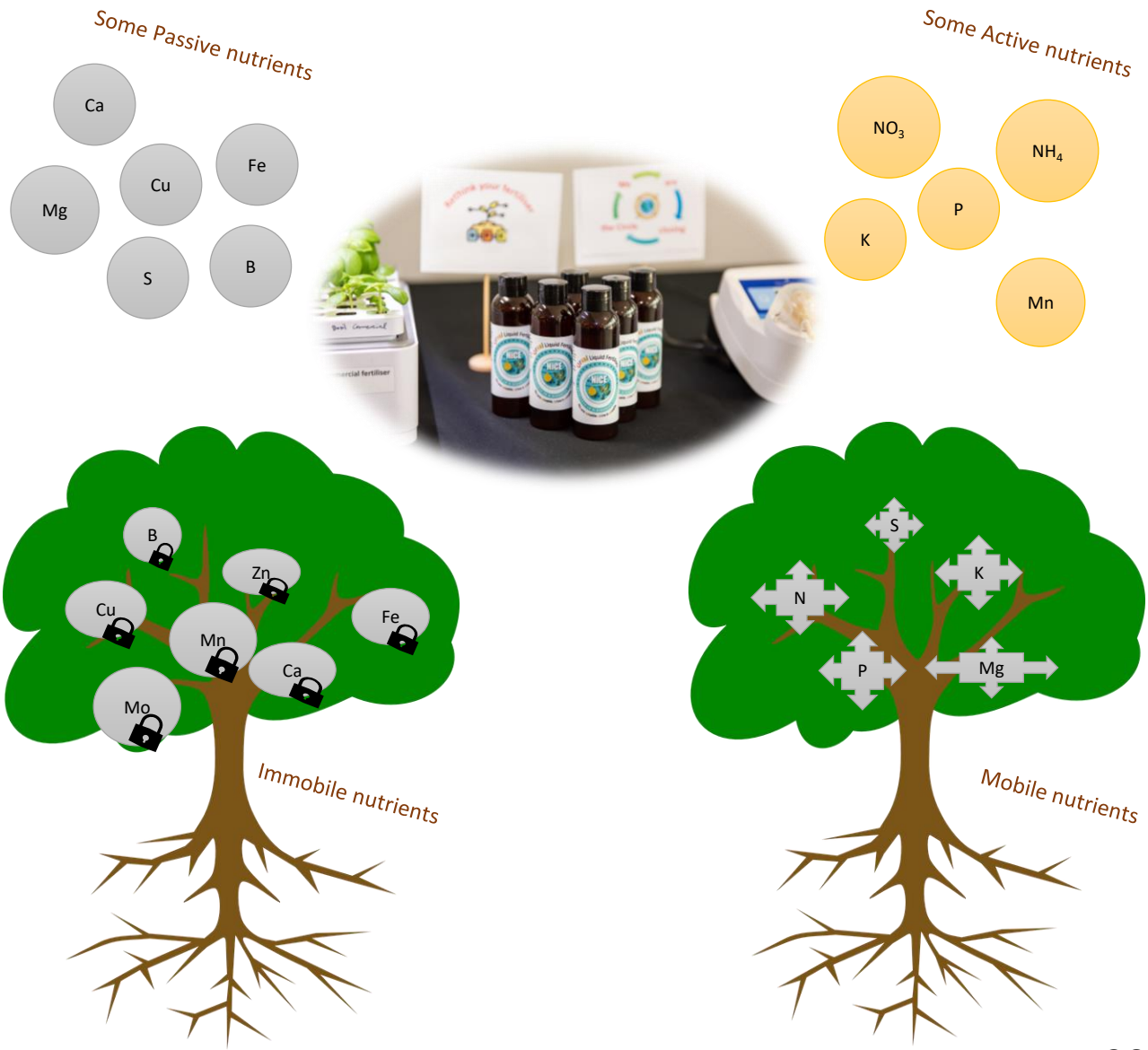
Plants' nutrients mobility

Plants nutrients are moved to the root zone during watering or fertigation and they are absorbed by plants when they are available in the soil solution or water solution. In general, nutrients are divided into Passive and Active nutrients depending on how they are transported into plants:

- Passive nutrients move into plants by mass flow and ion diffusion (metabolic energy not required)
- Active nutrients move into plants by specific proteins present in the membrane of the root hairs (metabolic energy required)

Nevertheless, the transport and movement of nutrients can also be affected by several chemical, biological and physical conditions such as pH, microbial activity, symbiosis etc.

Once inside plants, nutrients are transported to where they are needed, where some are immobilized while others can be remobilized.



Mobility of nutrients in plant and soil

Element	Symbol	Mobility in plant	Mobility in soil
Primary			
Nitrogen	N	Yes	Mobile as NO_3^-, Immobile as NH_4^+
Phosphorus	P	Yes - somewhat	No
Potassium	K	Yes - very	Yes - somewhat
Secondary			
Calcium	Ca	No	Yes - somewhat
Magnesium	Mg	Yes - somewhat	No
Sulphur	S	Yes	Yes
Micronutrients			
Boron	B	No	Yes - very
Chlorine	Cl	Yes	Yes
Copper	Cu	No	No
Iron	Fe	No	No
Manganese	Mn	No	Yes
Molybdenum	Mo	Yes	Yes - somewhat
Nickel	Ni	yes	Yes - somewhat
Zinc	Zn	No	No

Source: https://bioag.com.au/nutrient-mobility-explained/

For further information visit the ARC NiCE hub Website: www.nicehub.org

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