Organic certification evaluates the use of micronutrients on organic crops as a plant or soil amendment. While synthetic micronutrients are allowed in organic production, their use is restricted by specific requirements.

USDA organic regulations allow the use of synthetic micronutrients as plant or soil amendments when a deficiency for the micronutrient is documented. Micronutrient use may not contaminate crops, soil or water. Micronutrients made from nitrates or chlorides are not allowed. Micronutrients must not be used as a defoliant, herbicide, or desiccant. 7CFR §205.601

Documenting Micronutrient Deficiencies

Ensure your organic system plan identifies the use of micronutrients on your farm and all input materials you plan to apply are listed on your input material list.

Micronutrients may only be used when a need for a specific micronutrient has been documented. Documentation must be specific to the site or location for which the micronutrient was applied, specific to the micronutrient used, and updated regularly if the micronutrient application continues. Documentation about deficiencies must be available for review during your annual inspection.

Micronutrient deficiencies may be documented through:

- **Soil or tissue analyses**: These include tests of your soil, sap, crop leaf, or other tissue such as fruit or vegetable analysis.
- **Recorded visual observations**: Documented visual observations of the crop from the grower, field consultant/agronomist, or other professional.
- **Documentation of regional deficiency**: Research material or publications noting an area wide micronutrient deficiency.
- **Documentation from an agronomist or crop advisor that explains why micronutrient use is needed**: Recommendations must be specific to the operation and field for which it is applied.
Allowed Forms of Micronutrients

- Boron is allowed in any form except nitrates or chlorides.
- Cobalt, copper, iron, manganese, molybdenum, selenium, and zinc are only allowed in the following forms: sulfate, carbonate, oxide, or silicate.
- Chelated micronutrients are only allowed if chelated with lignin sulfonate, or with nonsynthetic substances such as citric acid and naturally occurring amino acids.

Other Nutrients with Restricted Use

- Calcium chloride is prohibited for general use, however, natural calcium chloride is allowed as a foliar spray to treat a physiological disorder associated with calcium uptake.
- Mined potassium chloride is allowed, provided it is applied in a way that minimizes chloride accumulation in the soil.
- Magnesium sulfate, although not a micronutrient, is allowed with a documented deficiency.

Additional Resources

**WSDA Input Materials for Use in Organic Crop Production (3022)**
https://agr.wa.gov/departments/organic/certified-operations/resources-for-certified-operations

**WSU Tree Fruit: Managing Micronutrients in Pacific NW Orchards**
http://treefruit.wsu.edu/micronutrients/

**NOP Guidance—Materials for Organic Crop Production (NOP 5034)**