

Symptoms of mineral deficiencies and excesses in

Strawberry

Zinc, Manganese, Boron and Iron



Index

1. Control treatment	3
2. Iron deficiency	4
3. Manganese deficiency.....	6
4. Zinc deficiency	8
5. Boron excess.....	10

The images shown in this document are for guidance only, as symptoms can vary depending on the crop and cultivation method. If you have any doubts about your crop's health, we recommend conducting a plant sap analysis

1. Control treatment

The control treatment received a standard fertilizer recipe, ensuring that no mineral deficiencies or excesses were induced.



2. Iron deficiency

Strawberry plants first show iron deficiency symptoms in young leaves. These leaves turn yellow between the veins, while the veins themselves remain green. It shows as a mosaic-like pattern. If the iron deficiency persists, the same symptoms will also appear in the older leaves.



Iron deficiency



3. Manganese deficiency

A manganese deficiency in strawberry plants appears as a fairly uniform yellowing between the veins. The veins themselves remain green, but the contrast with the yellowed leaf tissue is less pronounced than in the case of iron deficiency. The first symptoms are visible in the newly developed leaves.



Manganese deficiency



4. Zinc deficiency

Zinc deficiency in strawberry plants leads to a clear reduction in growth and quality. Leaf growth is inhibited early in the cultivation cycle: the leaves remain small and develop a narrow, pointed shape. In addition, yellowing of the leaf edges may occur.

Not only is the vegetative growth restricted, but fruit size also decreases. In this trial conducted by NovaCropControl, using a short-day variety, zinc deficiency resulted in approximately 20% lower yield compared to plants with sufficient zinc uptake. Furthermore, the strawberry fruits developed more prominent seeds, giving them a rougher texture.



Zinc deficiency



5. Boron excess

A high availability of boron can lead to toxicity in the plant. The first symptoms appear in the older leaves, as boron tends to accumulate in these tissues. Brown necrotic lesions develop on the edges and tips of strawberry leaves (Note: potassium deficiency can cause similar symptoms). In cases of boron excess, similar brown discolorations may also appear within the leaf tissue.



Boron excess



If you have any questions about deficiency or excess symptoms in your crop, please don't hesitate to contact us.
We will be glad to assist you.



www.novacropcontrol.nl



info@novacropcontrol.nl