Fertmark Osflo® N.P.K.S. FERTILISER The Complete Natural Fertiliser

BRASSICA

What deficiency is this?

Brassica crops are common crops across the agricultural industry is New Zealand, whether it is as an animal feed or grown in horticulture. In the agricultural industry, brassica crops are an ideal single-graze crop as they are high quality and a viable alternative when grass growth is slow. They are a good crop to rejuvenate soils before sowing back into pasture. Brassicas are typically fast-maturing and depending on the cultivar, can be planted in Summer, Autumn, Winter or Spring.

Some popular brassica examples include:

Animal feed
- Turnip
- Swede
- Forage brassica
- Forage rape
- Forage kale

Horticulture
- Cabbage
- Cauliflower
- Broccoli
- Brussel sprouts

An A-Z on brassica nutrient deficiencies and how to spot them

5 B Boron

Boron

Brassica respond well to Boron in the soil, but deficiency symptoms usually appear too late for remediation, so it is important that there is adequate supply at the early stages. Boron deficiencies are more common on sandy soils with a higher pH than 7. The symptoms vary across the brassica species, but the following is common across all crops;

- Curling of leaves with brittle margins
- Cracked and corky stems, petioles and midribs
- Hollow stems
- Interveinal (between the veins) chlorosis on old leaves
- 'Brown heart'

20 Ca Calcium

Calcium

Areas affected by calcium deficiency can appear deformed because the necrotic areas stop growing. Calcium deficiencies are often associated with compacted soils excessive soluble salts and rapid growth in hot, humid weather. Growing points on the brassica may die due to distortion of young leaves and 'tip-burn' (necrotic lesions on leaf margins and tips).

29 Cu Copper

Copper

Copper deficiencies are not very common and are usually only found in specific soils such as peat, leached sandy soil and thin organic soils over peat. Symptoms include a stunted rooting system, as well as chlorosis and withering of older leaves.

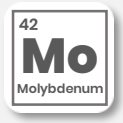
26 Fe Iron

Iron

Iron deficiencies are not common in brassica crops, and are only likely to occur at high pH and in a soil situation of heavy metal toxicity. If there is an iron deficiency, the young leaves will yellow and turn almost white with only the main veins and midrib remaining green. Turnip and swede crops will show symptoms of chlorotic (pale, yellow or yellow-white) mottling in their foliage. (Note: ensure that there has been no confusion with the more common Manganese deficiency).

Magnesium

A Magnesium deficiency is most likely to occur on compacted and acidic soils or very sandy soils that are prone to leaching after heavy rainfall. A mottle effect due to chlorosis between the leaf veins (veins still green) points to a magnesium deficiency, which is usually spotted in older leaves first. Old leaves may also wither and die or become stiff and fall down.



Molybdenum

Molybdenum deficiencies occur in acidic soils, as it is more available in higher pH. Symptoms begin on younger leaves, which may appear white. Upward cupping of leaves and narrow deformed leaf shape (whiptail) are other symptoms that may occur. A molybdenum deficiency may affect the metabolism of nitrogen by the plant causing leaf necrosis.

Manganese

Manganese deficiencies can be caused by over liming and is associated with high pH. There are a few symptoms that may occur in brassicas if a manganese deficiency is present. These include;

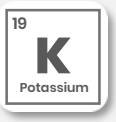
- Interveinal (between vein) chlorotic yellowing (mottling) of older leaves
- Stunted and bleached leaves (severe manganese deficiencies)
- Areas of necrotic tissue

Nitrogen

Nitrogen deficiencies are common in soils where there is low nitrogen availability, such as highly acidic or alkaline soils, and in waterlogged or leached sandy soils. Brassica's nitrogen deficiency symptoms include abscission of older leaves and pale yellow/green leaves with purple pink discolouration. Be aware that these symptoms if present may also be caused by factors such as root damage by nematodes, cold weather, drought stress or waterlogging.

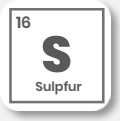
Phosphorus

Brassicas respond well to phosphorus additions and is most common on highly acidic soils and temporary deficiencies may occur on cold, wet soils. There are few foliage symptoms aside from green/blue tints and dull older leaves. Brassicas may become stiff and erect and reduced growth may be observed.



Potassium

Some New Zealand soils (Taranaki and Manawatu especially) have low potassium levels and are required to add through fertiliser applications. The worse cases of potassium deficiencies are on acidic sandy soils and can occur as a result of leaching. Symptoms of the deficiency start in older leaves as leaf margins yellow and edges curl upwards. These symptoms may spread to younger leaves.



Sulphur

Sulphur deficiencies most likely occur on acidic soils, light sandy soils, soil with low organic matter content and in high rainfall areas. The deficiency symptoms begin in younger leaves with interveinal chlorosis (yellowing) and inwardly curling leaves. Plants may be small and spindly with stiff and thin petioles. Older leaves may also present symptoms through reddening.

Zinc

Zinc deficiencies in brassica may be induced by excessive applications of phosphate and is most common in highly alkaline soils. Cupped leaves with outward curved margins and interveinal bronzing of older leaves are symptoms to look for.

If you have any questions or concerns about nutrients or deficiencies in your crops, give the team at Osflo Fertiliser a call

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