# **BIO**Humate

#### Plant biostimulant and microbial activator.

**BIO**Humate is a liquid blend of biologically active natural source ingredients, which exert a positive effect on the whole growth cycle of arable and horticultural crops. **BIO**Humate improves soil conditions and in particular, promotes the activity of beneficial bacteria and fungi including mycorrhizae. This increased bioactivity leads to an improved soil structure and encourages the symbiotic relationship between plants and their associated microbial species, and the natural organic carbon cycle is reinstated after being disturbed by soil cultivation.

### Why choose BIOHumate?

**BIO**Humate application can offer the following benefits to the crop:

- Increased cation exchange capacity
- Increased nutrient absorption
- Reduction in nutrient leaching
- Increased stress tolerance and plant vigour.

Organic matter in the soil not only affects soil structure and the micro fauna but also influences the cation exchange capacity and thus the availability of nutrients. Plants are able to make strong roots through improved root growth and availability.

The stimulatory effect is also evident in the plant from the earliest stages of plant growth. Seeds dressed with **BIO**Humate show improved germination rates, root growth is stimulated, and more robust top growth is produced when soil is treated with **BIO**Humate or when sprayed after emergence. A healthy plant with a strong root system not only makes more use of available nutrients but also exhibits better disease resistance.

Root and stem development are important factors not only in the establishment of a robust plant but also in enabling the plant to both avoid and resist fungal diseases. Many plants have root exudates that deter fungal attack, and rapid root growth provides a tougher roo that is resistant to penetration by soil fungi such as *Pythium*. Rapid stem growth moves vulnerable leaves away from the soil surface and from potential contamination by Rust, *Septoria* etc.

The efficiency of applied chemicals (pesticides and fertilizers) are also improved when **BIO**Humate is used as uptake is increased. As a result, **BIO**Humate application allows for reductions in inputs and recent trial work has shown that fertilizer levels can be reduced, together with fewer applications of

fungicides, whilst maintaining yield and quality. Crop yields are improved on soils low in organic matter or fertility.

#### **Application protocols**

For best results apply 3L/ha before sowing.

A further 3L/ha should be applied alongside fertilizer treatment at the post-emergence stage and a further 3L/ha one month later.

For soils with very low organic matter levels (1.5% or less) use 8L/ha on the first application.

For more information on any of our products, contact our experts.

## biotechnica

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