



Southern Humates produces a certified biological soil activator which is proven to increase pasture and crop yields.

Southern Humates stimulate microbial activity within the soil, which increases bacteria and fungi levels, leading to improved plant quality, better yields and greater productivity.



www.southernhumates.co.nz

What are humates?

Humate is a pure form of organic matter. It is an accumulation of partially decayed forest and other carbon-rich plant residues that have been compressed and preserved over the ages.

These humate deposits are high in carbon, natural minerals and trace elements, and are referred to as humic substances. They also contain two very powerful bioactive acids: humic acid and fulvic acid. Humic acid is essential to life on earth. It is present in the organic matter that feeds plants as well as bacteria, fungi and nematodes. These in turn provide food for larger soil organisms, which in turn provide food for even larger organisms further up the food chain. This is the important process we know as nutrient cycling and is what provides many of the nutrients in the soil to feed our plants.

Even though soils already contain varying levels of humus, humates not only bolster that existing humus, they are dynamic in promoting and stimulating the growth of soil biology vital for healthy and productive soils.



Why use humates?

Humic acid is often depleted or deactivated in our soils, resulting in slower plant growth. Applying humates is one of the most efficient ways to increase humic acid, hereby improving crop and pasture growth.

Natural humates, such as those provided by Southern Humates, are widely regarded as a premier source of organic matter and are recognised as the most effective of all soil conditioners due to their high cation exchange capacity and excellent water retention capacity.

Cation exchange capacity (CEC) is a measure of the soil's ability to hold positively charged ions. It is a very important soil property influencing soil structure stability, nutrient availability, soil pH and the soil's reaction to fertilisers.

Our products are helping farmers and growers to create more efficient, economically viable and environmentally sound enterprises.

Advantages of using humates include:

- Simulation of soil biology = healthier soils
- Increased fertiliser nutrient retention
- Increased crop and grass yields
- Reduced nitrate leaching
- Improved soil moisture retention

The Southern Humates difference



Our product is supplied from a privately owned humate seam in Waituna, Southland, which has been found to produce a consistently superior humate product.

Our humates have:

- High levels of humic acid
- No chemicals added during extraction
- ✓ BioGro organic certification (BioGro number 5638)

Independent laboratory testing of Southern Humates has confirmed that humic acid levels in our product are consistently high.





Proven results with Southern Humates

Microbiology field trial

A trial was conducted in Brydone, Southland to test the ability of Southern Humates to encourage growth in the beneficial microbiology found in the soil.

A paddock in pasture was split into quarters. Two quarters received humate at a rate of 66kg/Ha, while the other two quarters received none.

Six weeks after the application of Southern Humates, each quarter had multiple soil samples taken. The samples were sent to the Soil Foodweb laboratory for detailed analysis.

The results from this are shown below:



Ratio of active fungi to active bacteria: 0.01

Pasture with humates applied



Ratio of active fungi to active bacteria: 0.26

The trial showed conclusively that the addition of Southern Humates lifted both the beneficial fungi and bacteria levels.

Most notably, however, was the dramatic increase in the total fungi and active fungi.

The desired ratio of active fungi to active bacteria in pasture is 1:1. Our trial showed that the addition of humate was beginning to bring this back into balance after only six weeks, through activating the existing fungi as well as multiplying total fungi levels.

Case studies



North Island fruit growers reaping rewards

John Thomas, founder of NuLife Humates based in the Bay of Plenty, has a wide range of pasture and crop experience including growing maize and owning a kiwifruit orchard. John also furthered his handson knowledge and undertook study in the USA to become a qualified agronomist.

Having worked with humates for more than 15 years, he could be described as one of the early innovators of its use in New Zealand.

John's work with the avocado industry in particular has proven to be extremely successful. Growers are reportedly ecstatic with the increased yields from using humates which allows them to fruit annually as opposed to biannually using a naturally occurring, chemical-free product to energise their avocado plants.

The team at NuLife have been using Southern Humates for the last three years, and can report that it is a very good product. It is soft and nice to work with, as well as breaking down quickly. They are also seeing some good results in pasture growth.

South Island farms and vineyards seeing benefits of humates

Canterbury-based biological farming and soil fertility consultants, Top Soils, have seen positive results from Southern Humates.

Don Hart is the founder and CEO of Top Soils in Methven, which specialises in soil fertility programmes for all soils and farming operations. Top Soils balance soil nutrients using the Kinsey-Albrecht system of soil fertility. The company uses fertilisers that are not harmful to soil health, soil life and plant roots, and add humates to fertilisers to buffer and increase the efficiency of the fertilisers. The addition of humates with fertilisers increases the percentage of applied nutrients passing through the root cell wall.

"Southern Humates have been supplying us with quality humates for the last three years. We include humates in all our fertiliser blends and aim to have at least 10% of the fertilisers used in the form of humates."



Southern Humates preferred by soil and fertiliser specialist

Independent biological soil and fertiliser consultant, Jeff Broomfield, has used humates for the last 15 years within his farm fertiliser programme, applying humate at rates of 3-5% by volume to all fertiliser applications.

He believes he has seen the benefits and efficiencies of the fertilisers used. "Over the last seven years we have lifted Ca base saturation from 40% to close to 65% using 4-5 tonnes of agricultural lime applied; theoretically we should have used 9-10 tonnes to achieve this result. The trend for production is approximately 3-4% annual increase, as the block is used as a cut and carry operation and all grass has been weighed and dry mattered."

Broomfield has been recommending the use of humates to his clients on a similar basis to his own farming operation. These clients range from intensive dairy, sheep (dryland and irrigated) and cropping to extensive pastoral grazing on hill country throughout the lower South Island.

"To date, crop yields have been more consistent, applications of urea with humate have appeared to grow more grass, animal health has improved and there have been less urine patches observed."

Broomfield's fertiliser programmes are all designed to create a stable and biologically friendly environment; he strongly believes that humates have helped to achieve these successes.

The successes that he has observed on these various farming operations are similar to the results from the Southern Humates trials, where production from a conventional product increased by more than 30% when humates were added to it.

"Until now we have had only farmer observation and the belief that humates will create better efficiencies with our fertiliser programmes, now these observations are supported by science."

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