

vital vital Improve Herbicide efficiency with **Phytofulvate Enriched Fulvic acid** Wetter/Spreader/Rewetter



FulMax is a unique foliar wetter product that, when used in conjunction with Glyphosate and foliar nutrition products, will improve the efficiency due to enhanced uptake and mobility of the active ingredient into and within the plant. Phytofulvate results in growth stimulation, whilst the herbicide inhibits protein synthesis, improving the activity and rate of herbicide efficiency or foliar nutrient uptake and metabolism.

The following photographs illustrate the efficiency and control of 'kweekgras' (Cynodon sp.) with Roundup with and without FulMax. The application was done on a large commercial area on a farm close to the Limpopo river. Dosage was 500ml FulMax plus 4 l Roundup in 300l Water per ha. Applications were done early December 2009 with a shower of rain (50 mm) approximately 3 weeks after treatment whereafter regrowth occurred where FulMax was not included in the spray solution. The first photograph was taken early January and the second middle February 2010. The lasting effect can still be seen in these fields which was planted with tomatoes on the photographs taken in June 2013.



January 2010

February 2010



June 2013

June 2013

The unique fulvic acid (Phytofulvate) used in FulMax is an extract from trees, with unusual characteristics that gives it its wetting and dispersing abilities as illustrated below.



The wetting ability of this phyto-fulvic acid is directly related to the dispersing or soapy characteristics which breaks the surface tension of water. The surface tension of distilled water is 70.5 milliNewton/meter measured with the du Noüy surface tension apparatus(see photgraph below) while the value for distilled water with 0.1% **FulMax** is 28.46 mN/m, a 60% decrease in surface tension (See figure below). Fulvic acids from other sources do not have these characteristics and therefore are not wetting or spreading products.

Concentration where FulMax is most efficient. Determined by

- Du Noüy ring method
 - Product evaluated at range of concentrations made up in distilled water.



Furthermore FulMax also, due to its hygroscopic (water loving) nature, has rewetting characteristics as illustrated in the photograph below where a 0.1% **FulMax** solution was painted onto a leaf in the afternoon, whereafter it dried and due to it absorbing moisture from the air (dew), it became wet again which enhances uptake of herbicides or foliar applied nutrients over an extended period of time.



Composition:

		g/kg
Nitrogen	Ν	27.5
Sulphur	S	32
Fulvic acid		12%
SG		1.19

General Recommendations:

Use only as prescribed.

Shake well before use.

Note that due to the high organic content of the product a precipitate could be present in the container that will easily dissolve in the water of the spray solution.

Use **100 m***ℓ* **FulMax per 100 liter** water with the normal application dosage of the herbicide or foliar nutrient. For difficult to control and older weeds or foliar nutrition of crops with a thick leaf wax layer, use at least **200 m***ℓ* **FulMax** per 100*ℓ* water.

Note: Spray solution water must always be buffered between pH 4.5 and 5.5.