ReCulterPRO

BIOSPIRO

ReCulterPRO

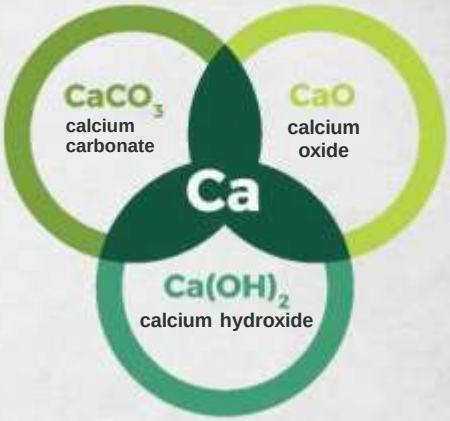
1 Manufactured using 3Calc technology

2 Contains three valuable forms of calcium

3 Source of calcium for plants and soil

ReCulterPRO

turns **soil fertility into yield potential**



3Calc technology is a combination of three forms of calcium in one product: calcium oxide CaO, calcium hydroxide $Ca(OH)_2$ and calcium carbonate $CaCO_3$.

Combining in-depth scientific knowledge with years of farmers' experience.

RECULTER®PRO is more than just a fertiliser, it improves the soil pH, provides valuable organic matter, feeds the plants with calcium and other nutrients.

The actual demand for lime in terms of pure component is around 2 t CaO/ha and this amount would allow to bring the pH of soils in Poland to the level corresponding to the needs of crop production.

Percentage of soils with necessary and needed liming demands (according to KSChR)

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Calcium is one of the most valuable elements, it regulates soil processes and it is an important nutrient for plants.

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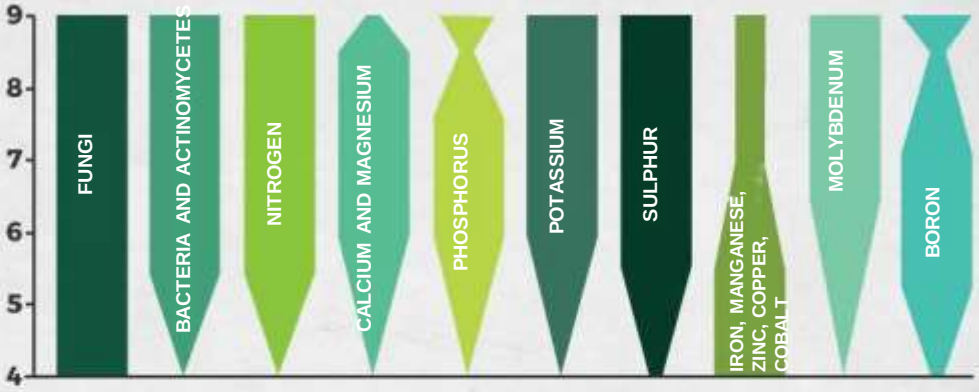
Soil

- increases the pH
- increases biological activity
- promotes the formation of aggregates
- promotes mineralisation of organic matter
- accelerates post-harvest residue decomposition
- promotes biodiversity in soil

Plant

- increases the rigidity and thickness of the cell walls
- increases tolerance to low temperatures
- involved in metabolic processes
- stimulates nitrogen utilisation
- promotes growth and development of the root system
- increases resistance to drought stress

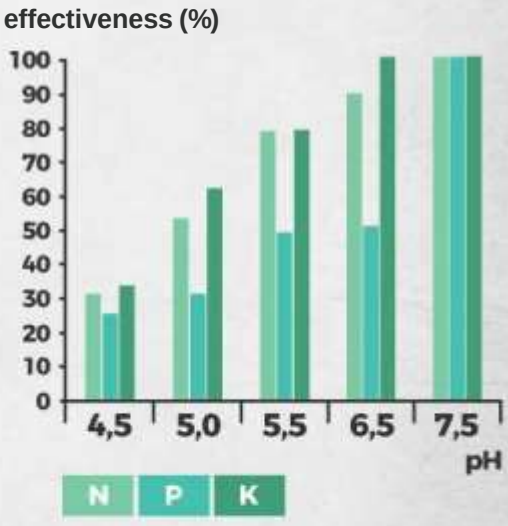
Influence of pH on nutrient bioavailability and soil biological life
(Holubowicz-Kliza, 2006)



Principal groups of microorganisms	Microorganisms	Optimum pH level	Lower pH tolerance limit
Microorganisms that decompose organic matter	fungi	4.0-5.0	1.5-2.0
	ammonifiers	6.2-7.0	-
	denitrifiers	7.0-8.0	-
	nitrifiers	6.5-7.2	4.8-5.0
	P triggering	6.5-7.5	-
Free nitrogen assimilating bacteria	SYMBIOTIC		
	alfalfa	6.8-7.2	4.9-5.0
	clover	6.8-7.2	4.2-4.7
	pea	6.5-7.0	4.0-4.5
	vetch	6.5-7.0	4.0-4.5
	lupin	5.5-6.5	3.2-3.5
	seradella	5.5-6.5	3.2-3.5
	NON-SYMBIOTIC		
	Azotobacter	6.5-7.5	5.5-6.0
	Clostridium pasterianum	5.0-7.0	4.7-5.0

Optimum pH for soil microflora development
(Holubowicz-Kliza, 2006)

Efficiency of macronutrient uptake with increasing pH
(Holubowicz-Kliza, 2006)



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By using 3Calc technology, **RECULTER®Pro** is characterised by a hyperactive structure-forming effect on the soil. In addition, the nutrients in the product feed and stimulate the soil microorganisms. The large active surface area of the particles of the three forms of calcium allows rapid, sustained and safe deacidification of the soil.

Thanks to its content of microscopic particles of calcium compounds **RECULTER®Pro** also regulates the micro pH in the rhizosphere of crop roots.

COMPOSITION (%)

(Analysis by OSChR jn Warsaw of 26.11.2015)

Organic matter
40.0% ±2.7 (m/m)

Nitrogen
1.36% ±0.16 (m/m)

Calcium CaO
19.0% ±2.0 (m/m)

APPLICATION

Agricultural crops
1 -5 t/ha, mix with soil to a depth of 20-30 cm

Vegetable crops
1.5-2.5 t/ha, shallowly mix with soil,before sowing or planting vegetables

Fruit crops
1.5-2.5 t/ha, shallowly mix with soil before planting

Positive opinion of the following scientific bodies: IUNG in Puławy, PIWET in Puławy, the Institute of Rural Medicine in Lublin, INHORT in Skierniewice and the Institute of Environmental Protection in Warsaw.

Placed on the market in accordance with the decision of the Ministry of Agriculture and Rural Development No. G-602c/23

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