

# Structural liming

*Structural liming is used to improve clay soil structure. Improved particle structure has benefits such as enhanced irrigation and reduced phosphorus runoff.*

Structural lime, including burnt (CaO) or slaked lime (Ca(OH)<sub>2</sub>), improves clayey soils structure and water absorption.<sup>1)</sup>

It reduces phosphorus runoff and erosion. It also raises the pH value of the soil. These effects help plants to use nutrients more efficiently and increases crop prospect.<sup>1)</sup> Improved soil structure will also benefit the earthworms and soil organisms in long term.<sup>2)</sup>

Structural lime is spread like the conventional limestone powder.<sup>1)</sup>

## Application

Structural liming is used on clayey fields with high phosphorus levels, especially if field slopes direct the drainage waters straight into water-bodies.<sup>1)</sup>

It is spread in the end of the summer, after harvesting or on fallows. Field should be carefully tilled or cultivated right after spreading, no later than 48 hours.<sup>2)</sup>

Lime spreading requires good conditions, soil should not be wet.<sup>1)</sup>

## Maintenance

- No need for extra maintenance

## Economics

- From 5-7 tons/ha, up to 15 tons/ha if needed. Total demand depends on soil quality, pH and phosphorus level



*Soil structure after and before structural lime treatment*  
Photo: Nordkalk

Sources: 1) Kulmala, A. 2011. Baltic Deal, liming. Searched 3/2018. ([Link](#))

2) Nordkalk. Structure liming and lime filters in phosphorus removal. Searched 3/2018. ([Link](#))

## Further information:

[Structural liming in agriculture](#)

[Structure liming and lime filters in phosphorus removal](#)