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# Vineyard greening

For wine production in harmony with nature

Many vineyards have poor soil structure as a result of many years of unbalanced soil working and growth of plants (usually grass). Soil compaction and lack of humus are the most common problems. Short- and long-term soil improvement and greening measures are needed to correct past errors. The aim is to boost soil fertility so that vines receive a balanced supply of nutrients. Without this, healthy growth leading to satisfactory grape development and the production of high-quality wine is impossible. This is true of both organic and con-

ventional viticulture. Optimum soil preparation is just as important to successful sowing as a good water supply. Seed should ideally be sown in spring (March/April) as soon as the soil conditions allow, in order to benefit from winter moisture. We recommend sowing in every other row depending on the water supply situation (rainfall, soil quality). This means that only half as much seed is needed. We recommend rolling after sowing fresh seed to improve the emergence rate. Cambridge or Guttler rollers are a good choice.



## The aim is to achieve the best possible soil conditions. These are:

### Deep root space

- ▶ Plenty of space for roots
- ▶ Soil preparation
- ▶ Stable crumb structure in the topsoil, humus content (2–4%)
- ▶ Greening and humus management
- ▶ Need for soil preparation



### Water/air supplies

- ▶ No obstacles to water seepage
- ▶ Better water and nutrient retention
- ▶ Stable crumb structure in the topsoil
- ▶ Less compaction in in the subsoil
- ▶ No boundary layers
- ▶ Good worm activity
- ▶ High soil activity



### High soil activity in the topsoil

- ▶ No topsoil compaction
- ▶ Optimum water and air conditions
- ▶ Stable crumb structure
- ▶ Maintaining or creating humus content

## What greening needs to achieve in organic/conventional viticulture:

- ▶ Improving and maintaining soil fertility
- ▶ Rapid growth (shade canopy)
- ▶ Rapid root development (revegetation)
- ▶ Deep root penetration
- ▶ Increasing root space
- ▶ Penetrating compacted areas

- ▶ Rich, varied root mass (nutrients for soil-dwelling organisms)
- ▶ Maintaining or creating humus
- ▶ Improving and maintaining diverse insect life
- ▶ A wide range of flower types
- ▶ Long flowering period

- ▶ Continuous supply of flowers
- ▶ Overwintering quarters for insects
- ▶ Greening boosts vine nutrition
- ▶ For vines, increasing water retention capacity and infiltration ability

Healthy soil - good wine!