

## PRACTICAL EXAMPLES OF SUSTAINABILITY IN THE VINEYARD

- 1. Fertilization by green bean fertilizer.** The grow of beans in vineyard keeps and develops a nice fertility in the soil (they confer nitrogen to the ground) and it increases the space for the roots, letting them grow faster and deeper.
- 2. No pesticides in vineyards.** The grass in the vineyards is controlled by mulch or mechanical weeding (to remove the roots of infesting grass). That practice keeps the fertility of the ground for long time.
- 3. Alternate use of rows for operations.** Every second year, we leave on the ground in a given row, the grass that we cut periodically. This helps to preserve natural habitat of many “healthy” insects and to avoid the soil erosion. We use the other rows for mechanical practices.
- 4. Use of data measuring instruments in the field for weather forecast, insects and disease attach modelling.** Thank to this approach we can prevent or act quickly against vines disease, decreasing drastically the usage of permitted organic plant protection products in quantity and in frequency. At the same time, we have information on optimal products to use.
- 5. Precision viticulture. Monitoring plants health, agro-meteorological and phenological modelling.** Practices in the field must be based on real plants health, depending on the season. Pruning in growing season, defoliation, leaves fertilising, etc. are typical operations depending on the season.
- 6. Biodiversity conservation.** The company decided strategically to grow only local grape and olive variety (autochthonous), following a regional programme to promote biodiversity in this area.
- 7. Containing production quantity level in vineyard.** The commitment is to limit the exploitation of the land. We prefer to produce less grapes and to maintain plants healthy for a long time.
- 8. Using recyclable materials in vineyard.** We use recyclable materials in vineyards (iron, untreated wood, biodegradable laces, no use of plastic).
- 9. Participate to the international movement of wine sustainability certification** (OIV -International Organization of Vine and Wine) following the common development of best practices, with a view to improve and to communicate the reached level of sustainability performances.
- 10. Monitoring the water consumption and the level of pollution.** As required by guideline of Frascati wine production, the irrigation system in vineyard is not permitted. On a voluntary basis MERUMALIA is committed to reduce copper usage in vine protection against downy mildew.



## PRACTICAL EXAMPLES OF ENVIRONMENTAL SUSTAINABILITY IN WINE PRODUCTION

Our experience shows that following sustainability programmes entail on the long run economic benefits. They come from the reduction of direct costs and from a higher quality of grapes and healthy status in the vineyard. Also in the wine cellar we use forward-looking practices and we continue to develop actions to improve our sustainability. In particular:

1. **Energy saving in wine cellar**, reached at design stage by thermal insulation of the winery (arranged in the basement under the vineyard ground level and placed against earth on 3 sides). The winery is covered by a roof garden, as good insulation in summer. Hot water in the winery is produced centrally (integration of solar and biomass).
2. **Computer control for silos cooling system** for an optimal management of silos temperature when more silos are cooled.
3. **System of phytoremediation** of process water, to return clean water in the field (planned).
4. **Evaluation of Carbon Footprint, Water Footprint** of products and of entire company (planned).
5. **Production of healthy wines**, paying attention to the health of consumers in terms of presence in the wine of sulphites and of allergenic substances (i.g. albumine, casein etc.). From the grape to the bottle, we do our best to control oxidation and to reduce at the minimum the amount of sulphites in the wine.

## SUSTAINABILITY IN THE PACKAGING

1. **Usage of light weight bottles** in order to reduce glass recycling, for a better CO2 balance.
2. **Cork from Certified Forests**. Half of our corks come from certified forests (FSC) and are unbleached, undyed and chemical-free.
3. **Use of recycled paper** for labels and boxes containing bottles. Gift Boxes are designed to be glue-free.
4. **Traceability** of each bottle back to its origin in the vineyard for DOC and DOCG wines (regulated by law).



## FURTHER SUSTAINABILITY PRACTICES

No smoking in all internal and external areas of the entire wine estate for staff and also for guests to keep the air fresh.

