







WEEDING STRATEGIES FOR VINEYARDS

Weed management strategies differ across the EU. Whilst cover crops die from drought in drier areas, weeds and cover crops grow continuously in wetter climates such as the UK.

- Weed management has become one of the most challenging vineyard operation with herbicides being increasingly withdrawn and less accepted by the general public.
- Weed-free vineyards, rely mostly on herbicides to keep the soil bare. This practice has revealed to be detrimental to soil health, leaving the soil unprotected against erosion.
- Partial or total cover cropping represents a more sustainable practice and the opportunity to select cover crops to improve soil health and attract beneficial insects to the vineyard.

	<p>100% weed-free vineyard: the most classical system until the last decade. Vineyards kept free of weeds to reduce pressure on water and minerals and reduce air humidity. Environmental concerns and reduced soil health (compaction, erosion, biodiversity) result in a decrease in the occurrence of this management technique.</p>	<ul style="list-style-type: none"> • Pros: Cost efficient • Cons: Increased erosion and reduction in soil health Relies largely on herbicide application Machinery not usable when soil is too wet
	<p>Weed-free row: the row is kept free of weeds by herbicide application and/or soil cultivation. This is now the mostly used system. Weed pressure is kept under control and cover crops can be sown with added benefits such as pest biocontrol and increased soil health. This system requires regular inter-row mowing in wetter climates.</p>	<ul style="list-style-type: none"> • Pros: Cost efficient if well managed • Cons: Weed pressure is higher with a seedbank next to weed-free area. Can be prevented by too dry soil conditions
	<p>100% cover-cropped: this management technique relies mainly on controlling inter-row and row weeds by mowing. Weed competition for water and nutrients can affect vineyard's performance and reduce significantly yield. Vines are reported to adapt to the extra competition by growing deeper root systems.</p>	<ul style="list-style-type: none"> • Pros: Environment friendly Weeding cost reduced to mowing • Cons: Weed pressure can be too high, resulting in significant decrease in yield and quality
	<p>Weed-free row + cultivated every over row: combines the benefits of the "weed free row" and the "weed-free vineyard". Every over row is cultivated, reducing weed competition and resulting in dryer air conditions. This management strategy requires multi-row machinery. Soil cultivation needs to be as superficial possible to reduce its impact on soil health.</p>	<ul style="list-style-type: none"> • Pros: Reduced air humidity • Cons: More expensive solution Multi-row equipment needed for spraying and row weeding

Description of the main weeding strategies for vineyards

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