


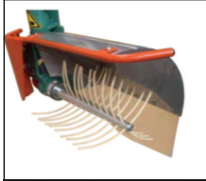


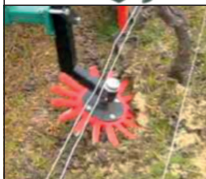


MECHANICAL WEEDING TECHNOLOGIES

Mechanical weeding solutions need to be adapted to your soil type and soil moisture levels.

Tools need to be used in combination to ensure no weed is favoured by the mode of action of a particular tool.

- Weed management has become one of the most challenging vineyard operation with herbicides being increasingly withdrawn and less accepted by the general public.
- Mechanical alternatives to herbicides exist but their efficacy depends on multiple factors such as soil type and weeds establishment.
- Mechanical weeders differ in their mode of action and their efficacy will therefore be variable according to soil type, the weeds targeted and how established the vegetation is.

	Depth and speed of work	Mode of action	Pros	Cons
Blade 	2-3 cm 4-6 km/h	Cuts weeds roots	Speed of work	Less efficient when weeds development is too important
Mower 	Surface 2-4 km/h	Cuts weed shoots	Efficient even with very developed weeds, no erosion	Dust, interplanted and young vines to be well protected
Tiller 	To be adapted to local conditions 2-3.5 km/h	Disturbs soil structure	Efficient even with well developed weeds	Can remove soil from the row, better if followed by hilling
Disks 	Up to 5 cm 5-7 km/h	Disturbs soil structure and mulches weeds	Dual mode of action, moves the soil and buries weeds with soil	Less efficient in light soils and limited effect on weeds in the center of the row, creates a mount in the row
Fingers 	Mostly used in combination with the disks	Destroys soil structure (superficial)	Evens the soil and breaks the soil up. Can work close to the vine	Not efficient if weeds already established and/or soil to too hard to work

Description of the mode of action of a range of mechanical weeders for vineyards

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