



Cover Management in Rainfed Olive Groves

Challenge

Tilling represents a menace to erosion, nutrient loss, soil temperature rise and consequently water soil evaporation. Extreme weather conditions potentiate these effects and thus, there is a growing need to adapt conventional agronomic practices used in rainfed olive orchards.

Solution

Cover management is a simple technique that consists of making use of natural or seeded vegetation, controlled by cattle herding or machinery, to protect the soil surface from being directly exposed to environmental conditions, contributing to soil fertilisation.

Benefits

It diminishes soil erosion risk, promotes biodiversity, increases carbon sequestration, improves soil fertility and prevents soil water content loss through evaporation and increases water holding capacity.

Applicability box

Theme

drought-resistant crop
biodiversity
climate change adaptation
climate-change mitigation
erosion control

Context

Extreme weather conditions, high slope landscape, soils with poor organic matter contents.

Application time

All year

Required implementation time

None/Variable on the area and culture involved.

Period of impact

All year

Equipment

Mower, shredder, tractor.

Practical recommendation

A set of measures may be applied when deciding on managing the cover of an olive orchard. Next is a simple flowchart (Figure 1) that summarises the steps to take when deciding to go for cover management in an olive grove. In Figure 2, a grove with natural cover managed by herding (a), mowed (b), and seeded (c) and (d) can be observed.

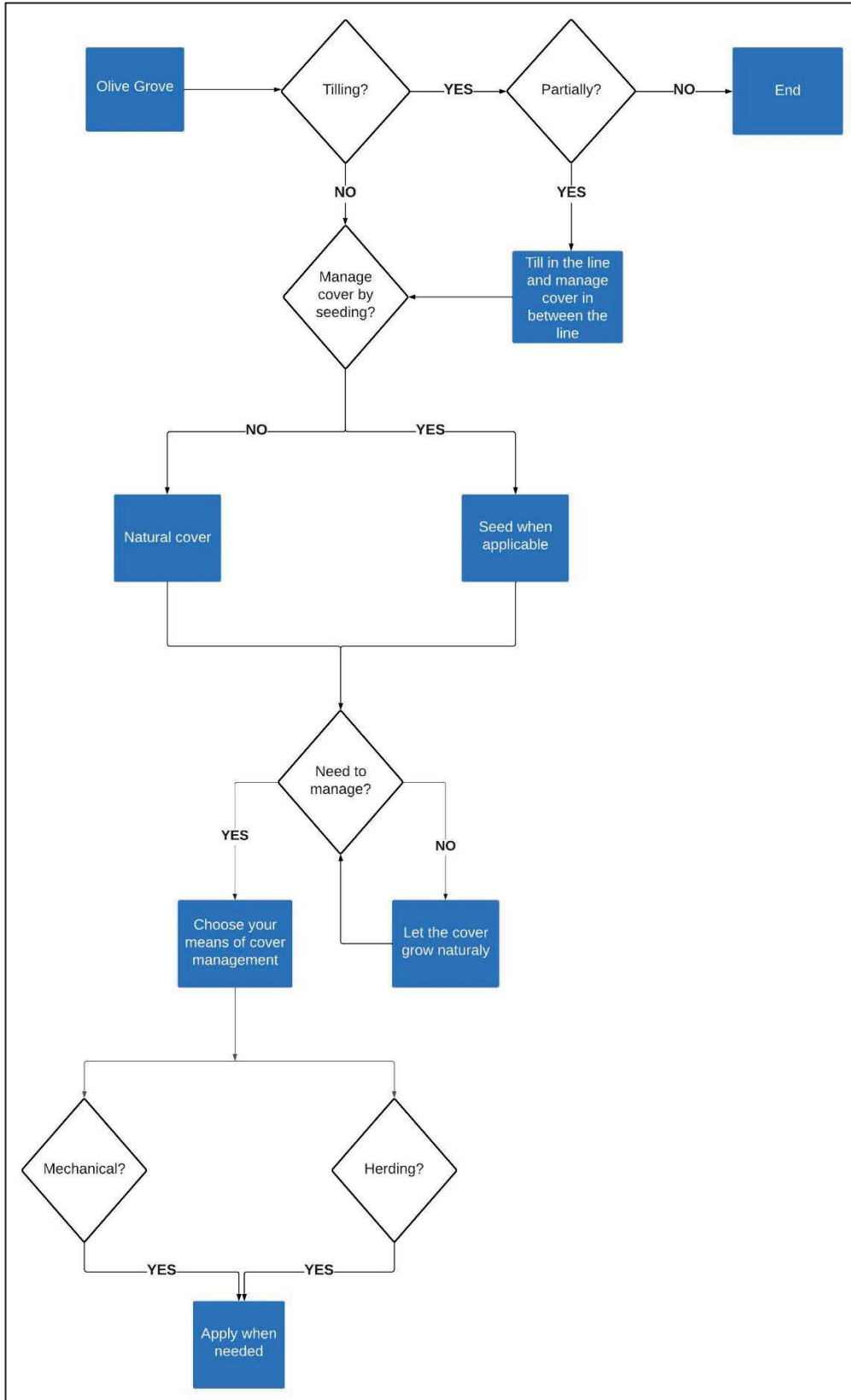


Figure 1 - Flowchart on cover management

Approx. 900 characters excluding spaces



Figure 2 – Natural covers managed by herding (a), mower (b) and seeded covers (c and d).

Further information

Further reading

Scientific papers (in English):

- DOI:10.5424/sjar/2015132-6252
- DOI: 10.1016/j.proenv.2015.07.213
- DOI: 10.1016/j.scienta.2013.04.035
- DOI: 10.1007/s10705-015-9730-5
- <http://hdl.handle.net/10198/7910>

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