

Silvopasture to reduce heat stress in mediterranean cattle systems


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Silvopasture combines open grasslands with regulated use of wooded areas through adaptive grazing management. Animals move between pasture and forest seasonally, using tree cover as a thermal buffer during hot periods. Grazing pressure in forested areas is adjusted through stocking rate, rotation timing and duration of access. Woodlands are treated as a complementary resource rather than a permanent feeding area.

Hotter summers and longer dry periods are increasing heat stress in Mediterranean cattle systems. High temperatures reduce feed intake, slow weight gain, and cause production losses. Controlled access to wooded areas provides natural shade and a cooler environment, maintaining stable weight gain and protecting animal welfare. The structural diversity of silvopastoral systems also supports a greater variety of plant species in the understory and provides habitat for woodland birds, insects and small mammals. Open pasture remains optimal in spring when forage quality is high. Using both resources seasonally is the most effective strategy.



Photo credit: Jacopo Goracci

Practical recommendations for planting

- Prioritise open pasture in spring; move cattle to shaded woodland during summer or heat waves.
- Moderate grazing time in forests to avoid vegetation damage and ensure regrowth. Controlled grazing helps maintain diverse ground flora and supports pollinators.
- Plan seasonal grazing calendars combining rotational grazing, moderate stocking rates and controlled woodland access.
- Temporarily exclude sensitive areas to allow natural regeneration. Periodic exclusion supports shrub and understory recovery, increasing habitat diversity.
- Monitor animal behaviour, body condition and forage availability.

Further Information on farmbionet.eu

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