Benefits of Regular Pruning

Leandro Ravetti, Modern Olives
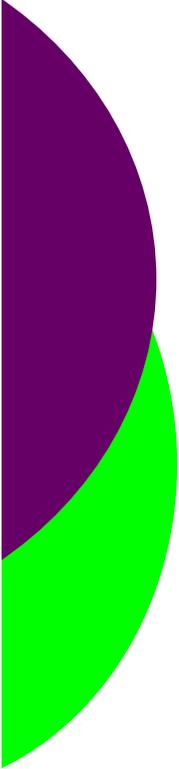
Australian Olive Association Annual Conference
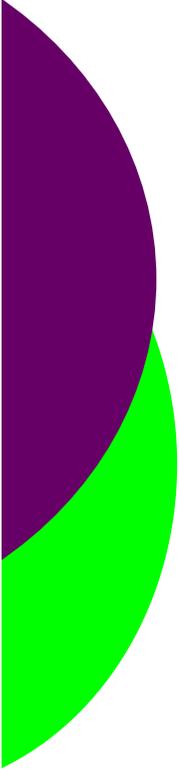September 2014

Pruning

Pruning

Why pruning?

IMPROVE CANOPY EFFICIENCY

• Better light interception.

• Higher leaf to wood ratio.

• Minimal alternant bearing.

• Easier management of the grove.

• Cheaper and more efficient harvesting

operation.

modern
olives

Which is the most suitable training system?

- Variety.

- Farm size and manual labour availability.

- Harvesting methods.

- Tree spacing.

modern
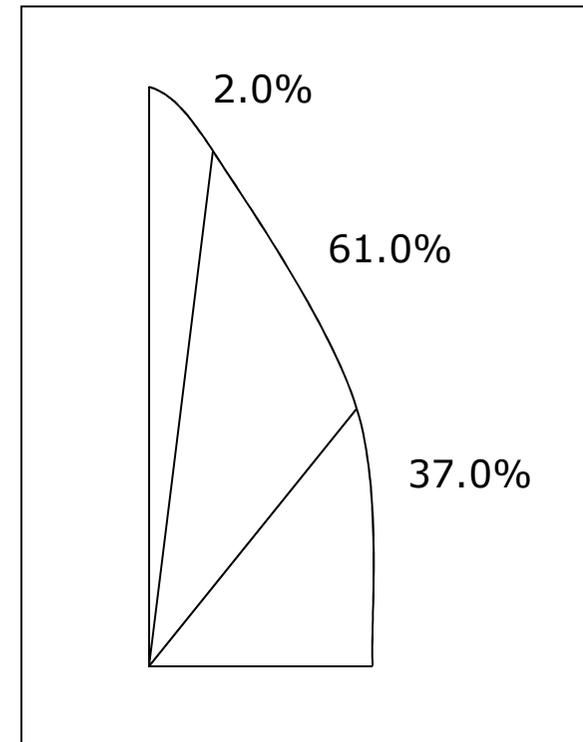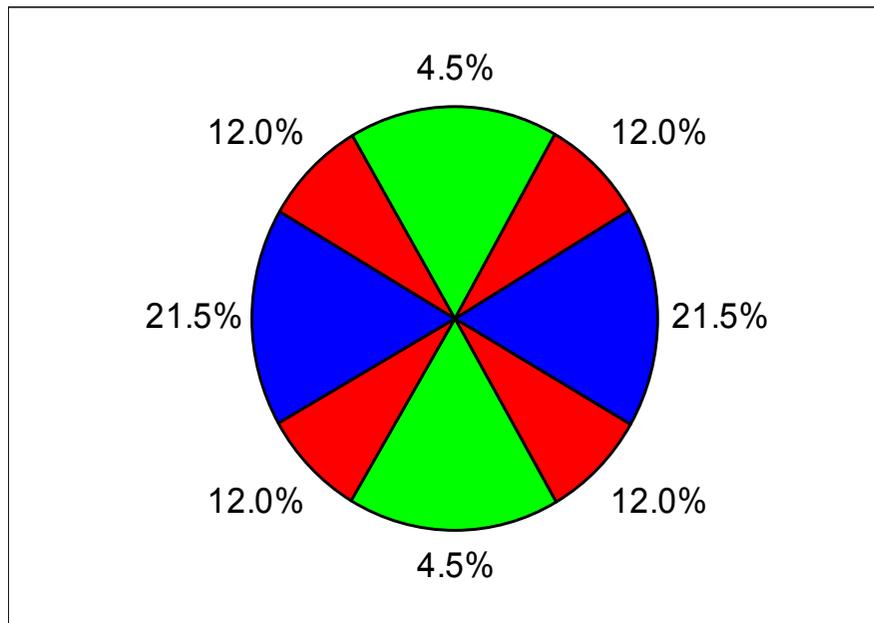olives

Training systems
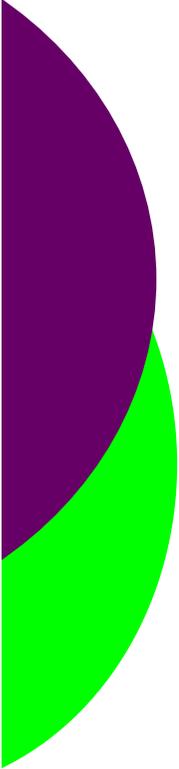
Training systems

Harvesting methods

Harvesting methods

Percentage of broken branches according to position

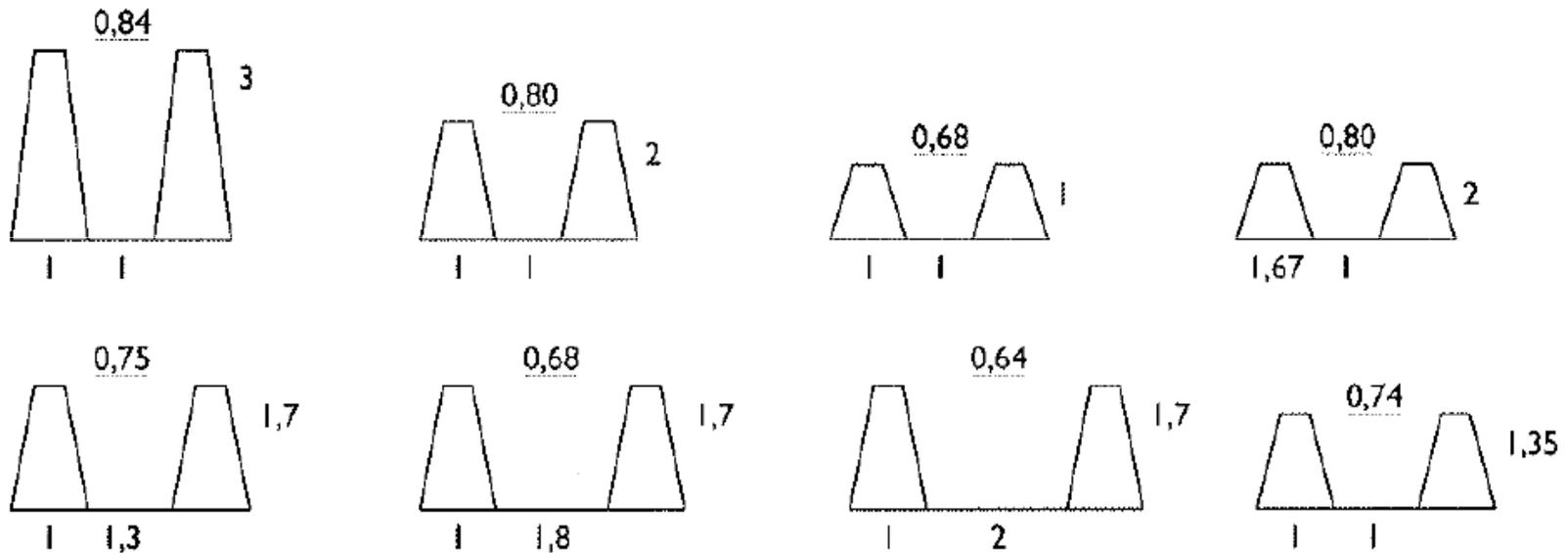Trial conducted at BBE by Modern Olives; 2004-08

Optimal volume of canopy

The **productivity** of an olive grove depends on **light interception** and on **canopy volume** that is appropriately **illuminated** (+30% of radiation).
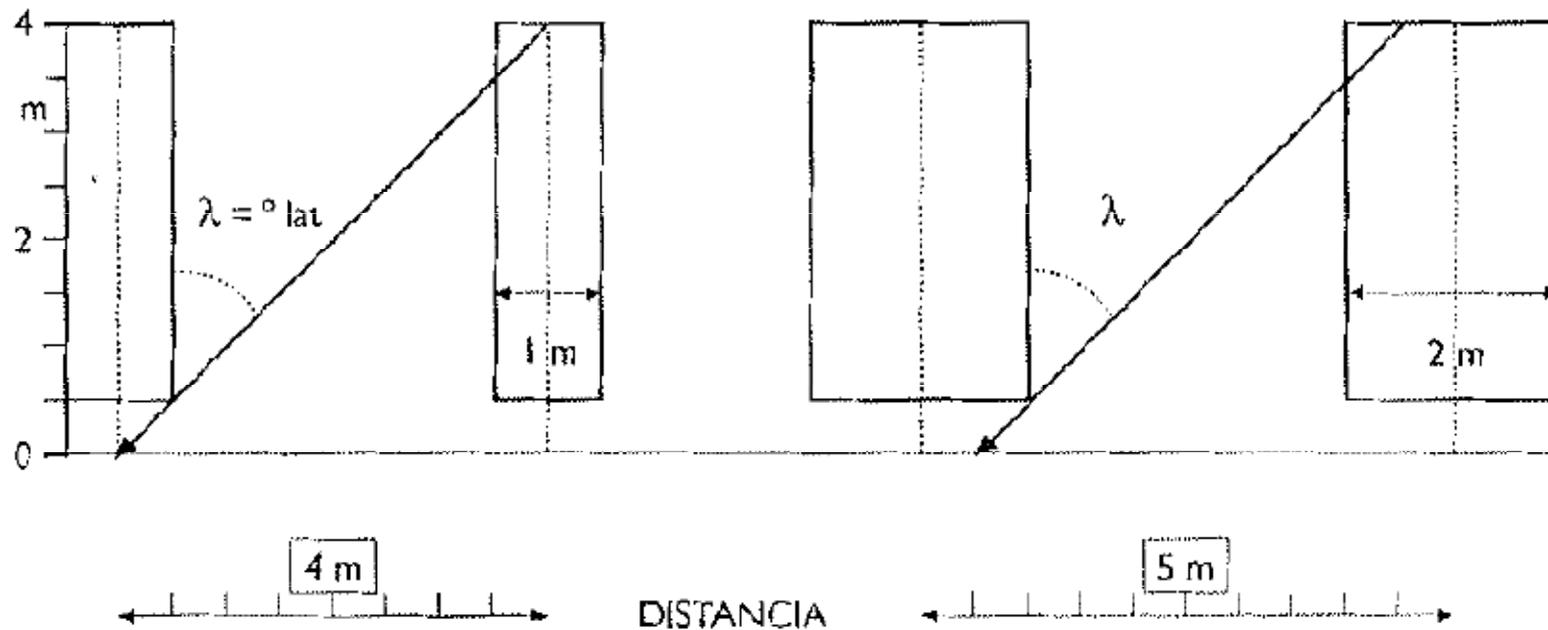
Spacing

Maximum radiation interception

Ferguson, 1963; Cain, 1972; Jackson y Palmer, 1972; Smart, 1973, 1984; Jackson, 1978, 1981; Palmer, 1981, 1989
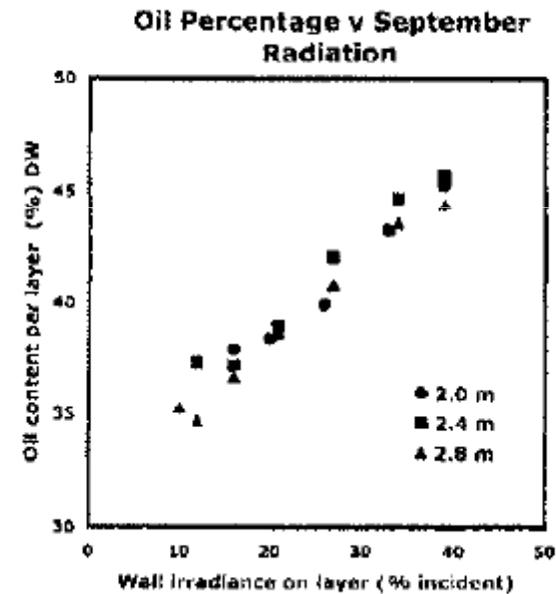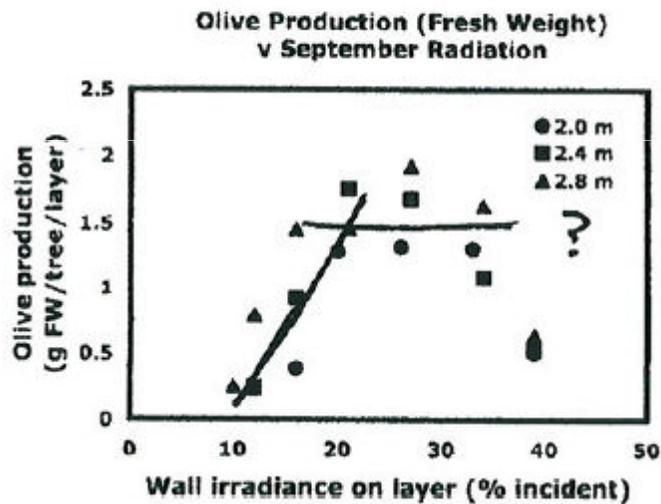
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Illuminated canopy volume

Adaptado de Odier, 1978
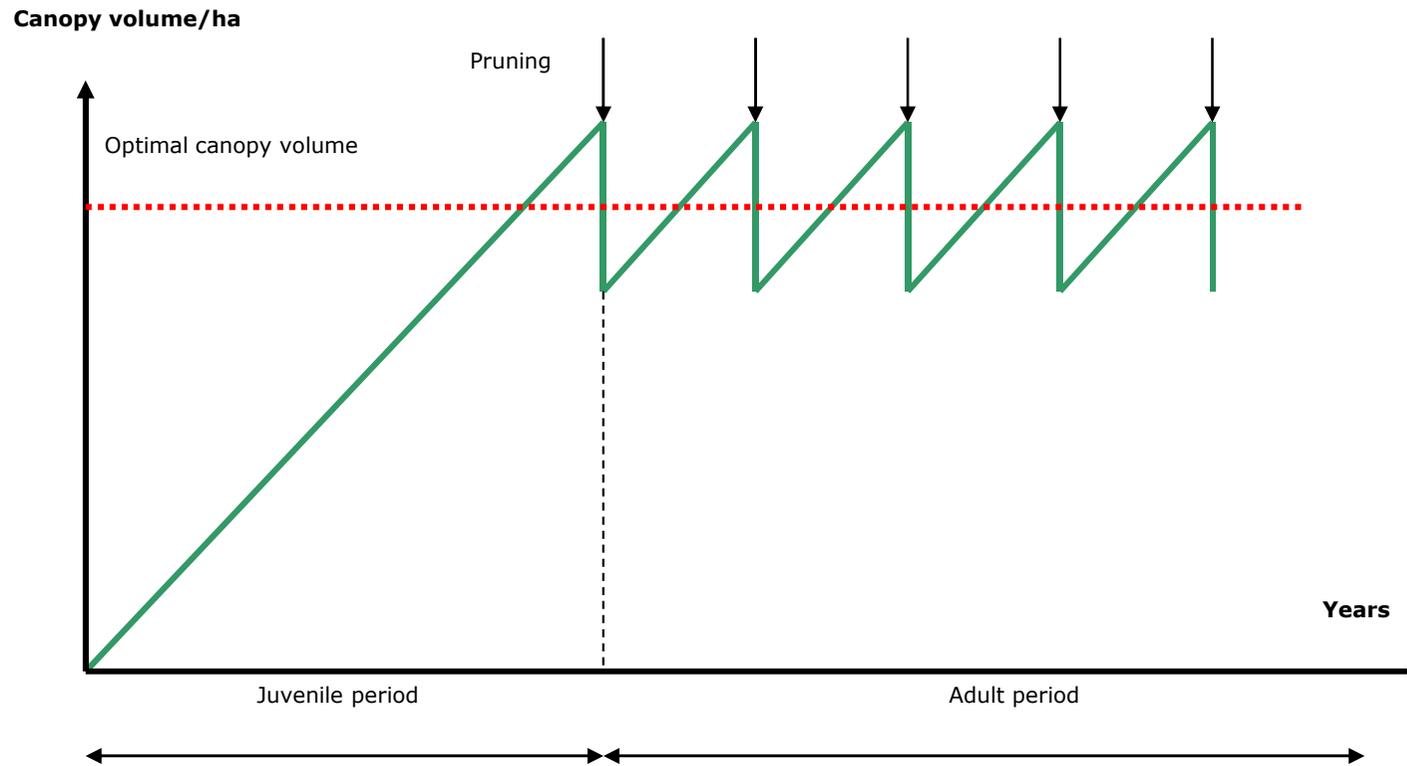
Spacing

Illuminated canopy volume

Olive Production (Fresh Weight) v September Radiation

- ● 2.0 m
- ■ 2.4 m
- ▲ 2.8 m

Oil Percentage v September Radiation

- ● 2.0 m
- ■ 2.4 m
- ▲ 2.8 m

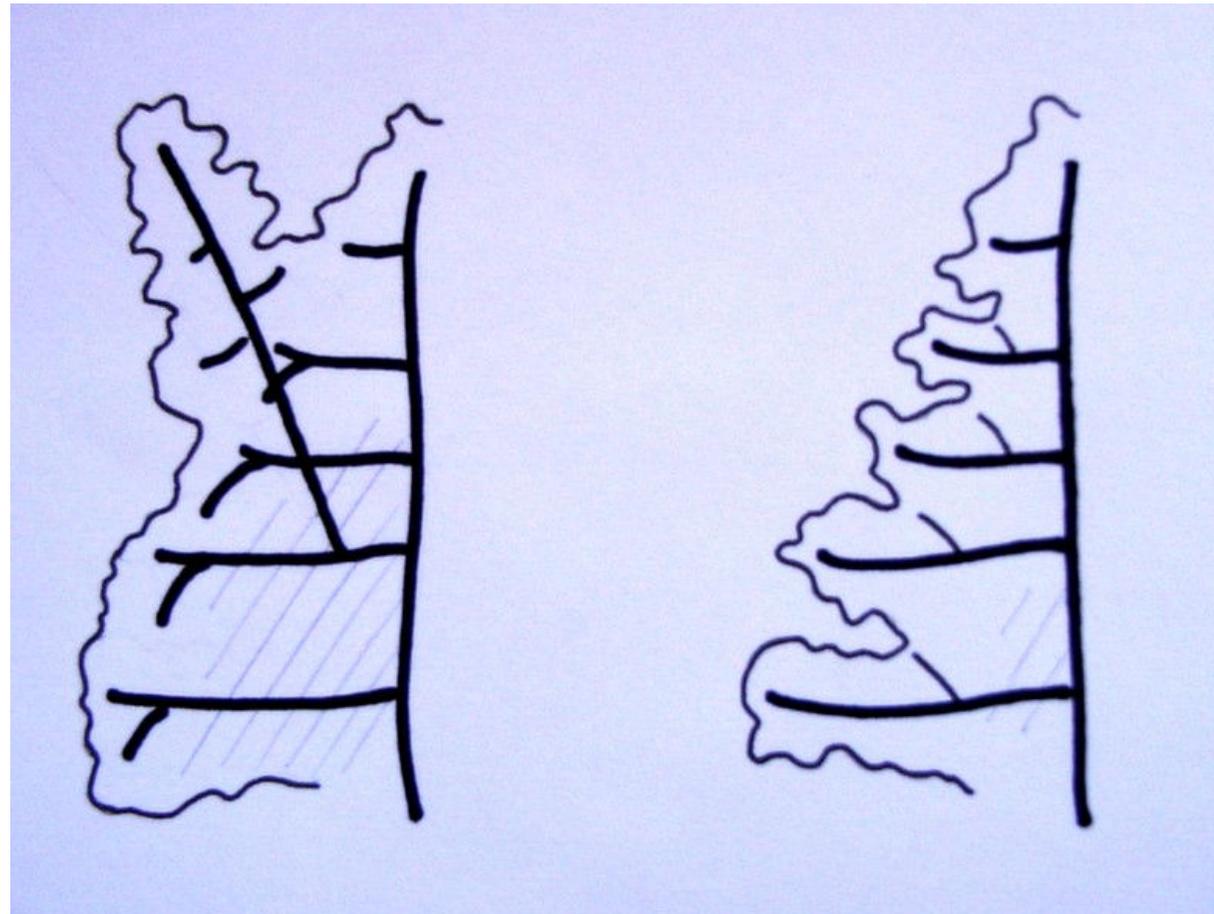Connor, J. 2006

Training systems

Optimal volume of canopy
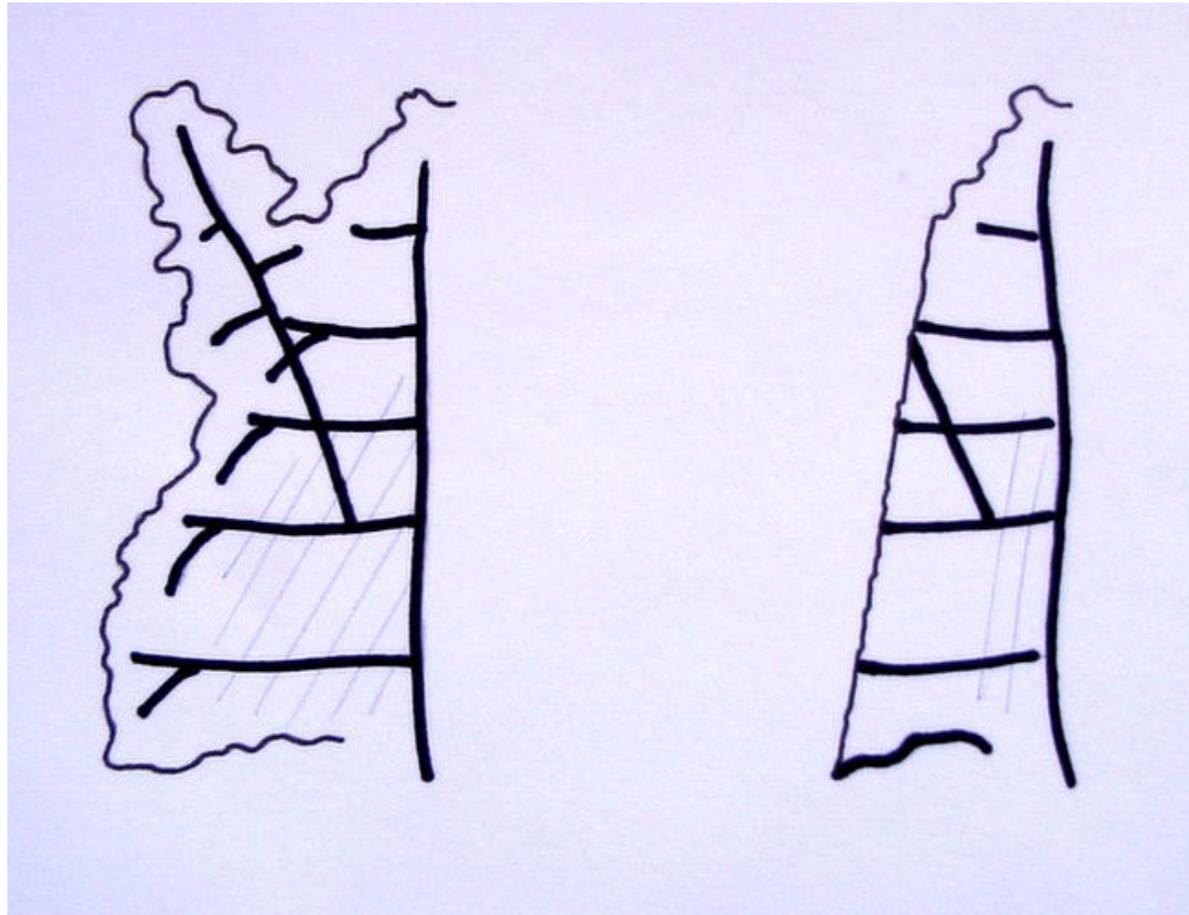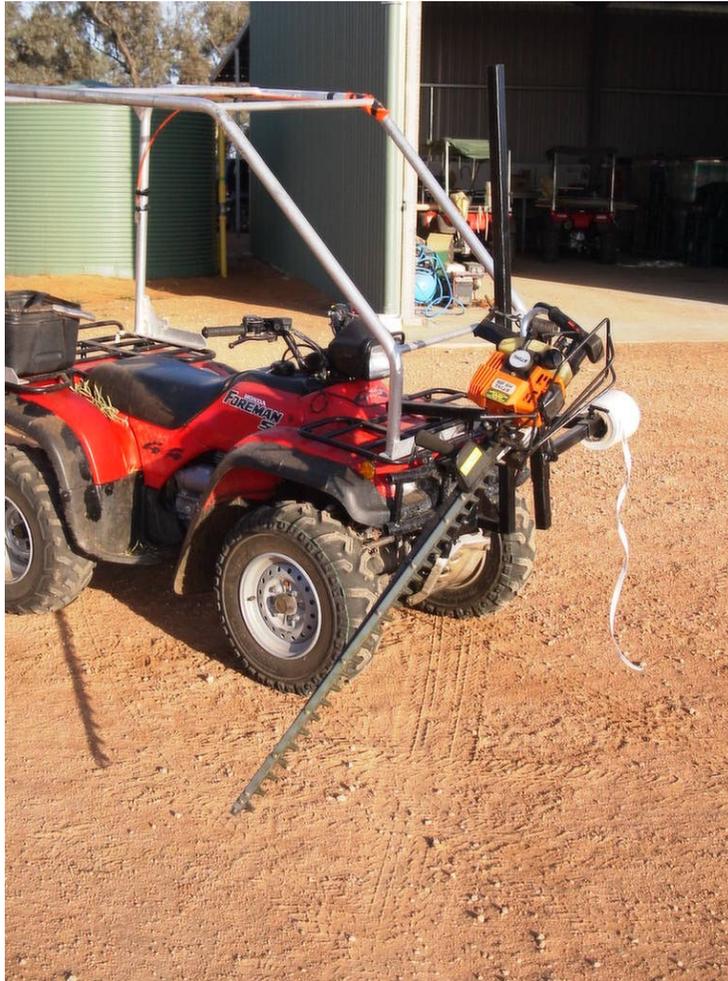
Optimal volume of canopy

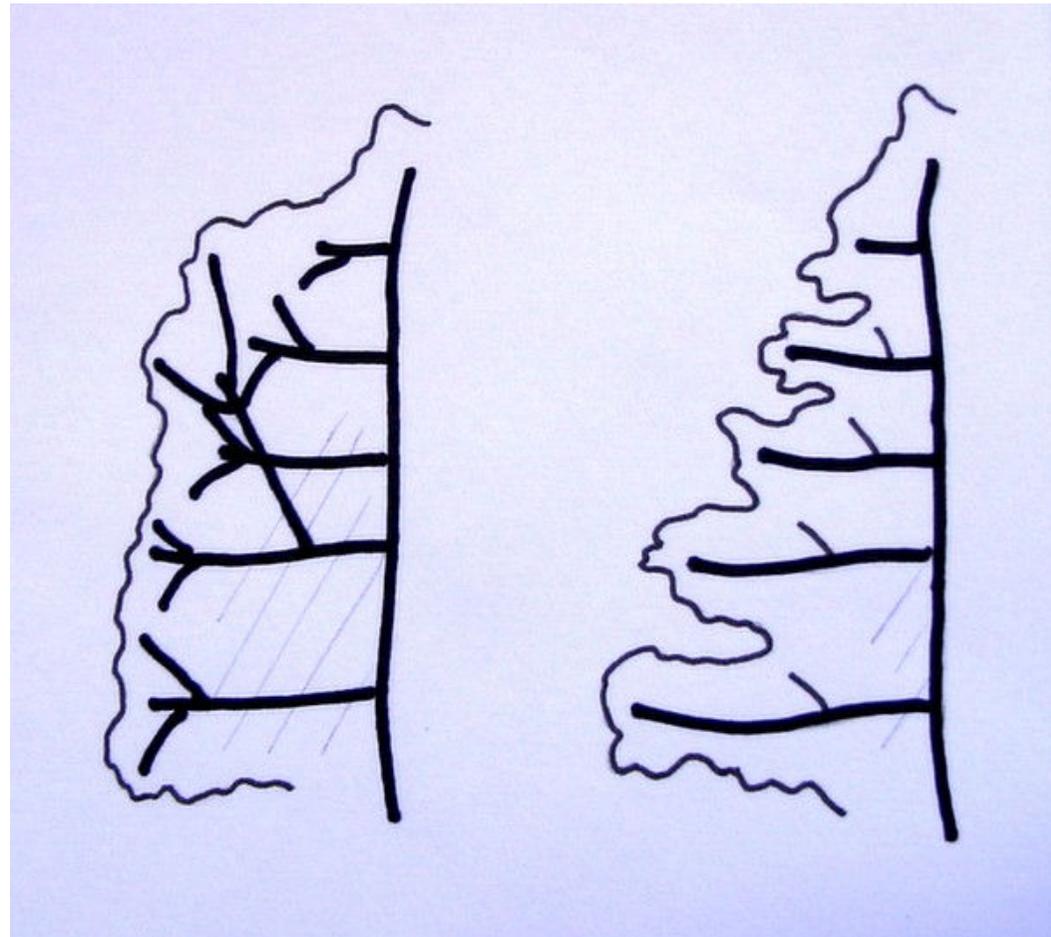# Training systems

Training systems

Training systems

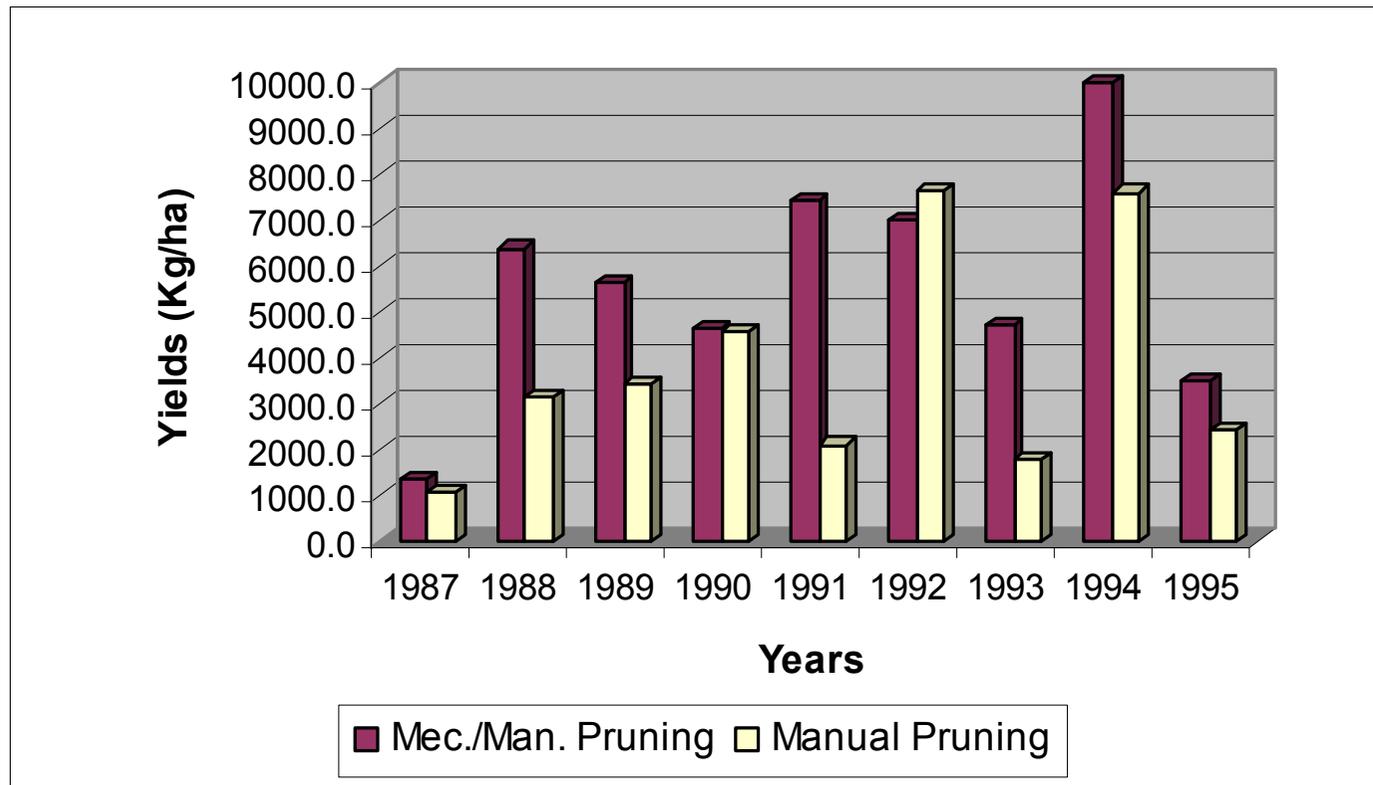# Training systems

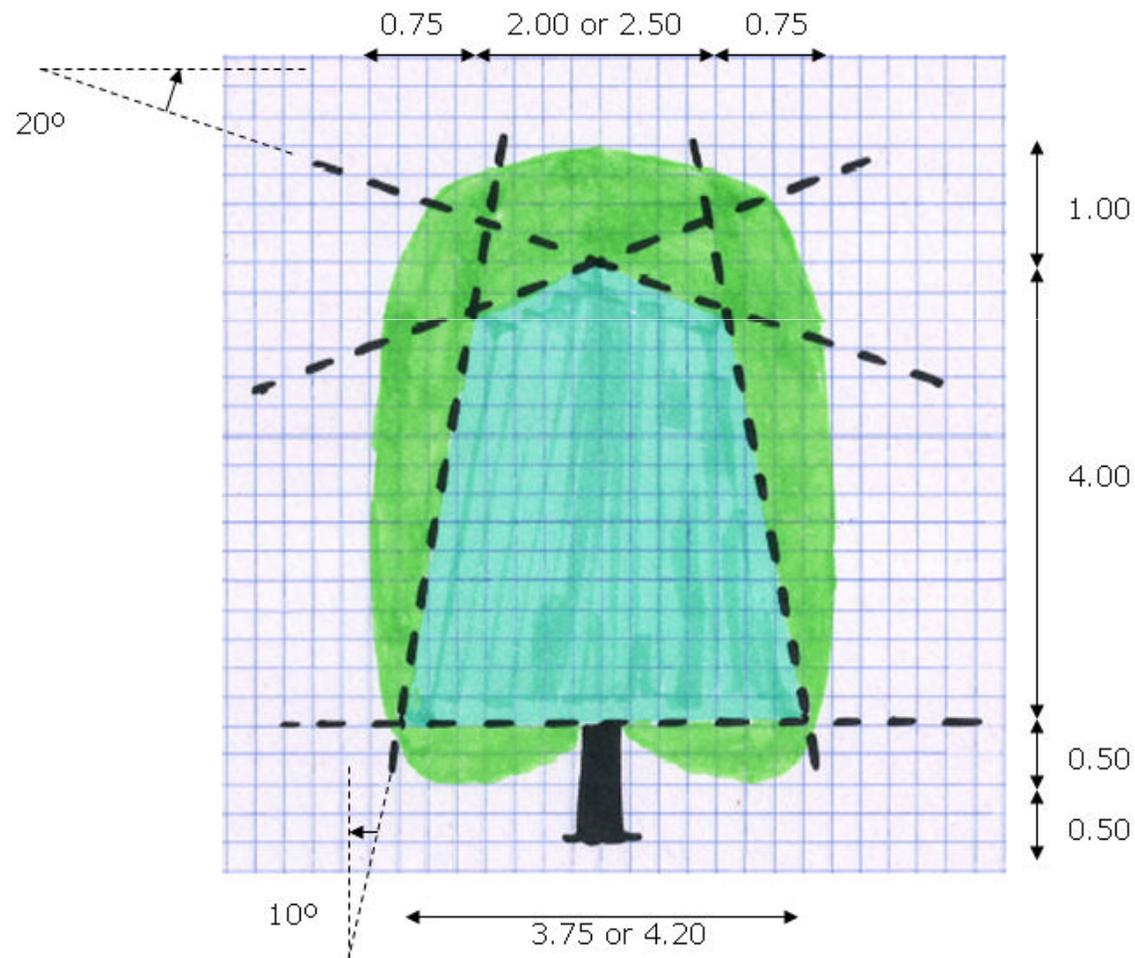# Training systems

Training systems

Accumulated yields per ha in trees with traditional manual pruning and with combined mechanical and manual pruning in Jaen, Spain (Muñoz Cobo, M. et al).
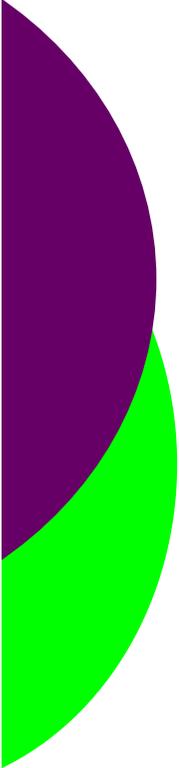
Training systems

Yields per ha in trees manually pruned vs. trees with a combination of mechanical and manual pruning in Perugia, Italy (Fontanazza, G. et al).

Training systems

Possible Cycles

Cycle A:
- On Year 1: Topping x 2; Hedging x L & Manual x R.
- Off Year 1: No pruning.
- On Year 2: Topping x 2; Hedging x R & Manual x L.
- Off Year 2: No Pruning.

Cycle B:
On Year 1: Topping x 2; Hedging x L & no pruning x R.
Off Year 1: Manual x R.
On Year 2: Topping x 2; Hedging x R & no pruning x L.
Off Year 2: Manual x L.

Thank You

Photo: Marlborough Olives