

Field data (Each questionnaire refers to one crop species cultivated per field)

Municipality : Mazaleon

Latitude : 41.05

Longitude : 0.1



Field Size (ha) 2

Crop Species

<input checked="" type="checkbox"/> olives	<input type="checkbox"/> vineyards	<input type="checkbox"/> apples	<input type="checkbox"/> pears
<input type="checkbox"/> peaches	<input type="checkbox"/> apricot	<input type="checkbox"/> nectarine	<input type="checkbox"/> plum
<input type="checkbox"/> cherries	<input type="checkbox"/> oranges	<input type="checkbox"/> tangerines	<input type="checkbox"/> lemons
<input type="checkbox"/> grapefruit	<input type="checkbox"/> hazelnuts	<input type="checkbox"/> chestnuts	<input type="checkbox"/> almonds

Variety of crop Arbequina

Age of crop 8

Density of crop (trees/ha) 1500

Width between cultivated rows (m) 4.0

Distance between trees (m) 1.6

Crop form

Crop forms for vineyard



Vase



Espalier



Marquee

Crop forms for Olive



Ancient olives



Vase (1 stem)



Vase (2-3 stems from soil)



Bush (intensive 250-600 trees/ha)



Superintensive (>1500 trees/ha)

Crop forms for fruit trees



Natural



Vase



Bush/Globe (very small trees)



Spindle/Pyramid



Palm/Fan



Epsilon transversal

Slope (%)

Soil Cover



Bare.No grass cover.
Tillage several times per year



Seasonal occurrence.
Herbicides+mowing
<50% soil cover



>50% grass cover.
Mowed several times per year



100% Grass cover.
Mowed several times per year

Crop Yield

Average Crop yield (t/ha) _____

Crop yield before measurement (t/ha) _____

Amount of product obtained for the year that the pruning measurement is performed in tonnes per hectare

Irrigation

rain fed

partial irrigation

fully irrigated

Intensification degree

Specify the amount of fertilizer and pesticides

organic

low

intermediate

high

Pruning Operations Performed

Type of pruning

- Maintenance
- Grafting

- Structuring
- Topping

- Removal of old branches
- Blooming

Pruning Method

- Only manually
- Mechanised pre-pruning + manual

- Fully mechanised

Pruning Operations

Specify the pruning operations that are carried out. Check as many as apply.



- Manually shears



- Assisted shears



- Chainsaw/
armchainsaw



pre-pruner:hedge trimmer



pre-pruner:discs



pre-pruning topping

Season of pruning

January

February

March

April

May

June

July

August

September

October

November

December

Frequency of pruning

annual

biannual

biennial

Once per years

Mechanized Collection

Preparation of the field prior to harvesting



No preparation - prunings were left on the soil as they fall from tree



Centre-operatos position prunings on the center of the lane between tree rows



Centre alligned-operatos position prunings in a specific position in center (e.g. alligned with the direction of the row)



Previous windrowing-a tractor with windrower is used prior pruning harvester

Integrated windrower to the pruning machine

Harvesting methods

Check according to the figures below the harvesting method that is used for the pruning biomass



Manual cross-cutting of firewood+gathering at field side



Forestry chipper towed by tractor + manual feeding



Hauling the branches + shredding/chipping at field side



Hauling the branches + baling at field side



Harvest with mulcher/chipper in front



Harvest with mulcher/chipper at rear



Harvest with rear mulcher/chipper and bin



Harvest with rear mulcher/chipper and big-bags



Automotive shredder/chipper with rear trailer



Harvest with standard hay baler



Harvest with rear baler prepare for wood or tree branches



Pre-pruning integrated with collection and mulching/chipping



Pre-pruning integrated with collection and mulching/chipping in an automotive machine

Type of pruning treatment and model of machinery

Specify the method that prunings are treated based on the outcome product and manufacturer-model of each machinery (windrower,mulcher,chipper,baler) that is used if applicable



Windrower-Machines that align biomass in a row

Windrower (manufacturer-model) _____



Mulcher-big pieces. Machines that break the branches in big pieces. Normally they are an evolution from the typical mulchers/crunchers utilised to leave the branches on the soil in pieces.

Mulcher (manufacturer-model) _____



Shredder - Produce finer material (hammers or hammers with a knife.Do not produce a clear cut)

Shredder (manufacturer-model) _____



Chipper - Clean cut. Resembles the typical form of forest woodchips

Chipper (manufacturer-model)

ONG SNC
(model PC50
chipper) _____



Round bale

Baler (manufacturer-model) _____



Squared bale

Baler (manufacturer-model) _____

Processes Specifications

Specify the specifications of the processes (manpower, gross working time, productivity, fuel consumption)

Check as many as apply

Processes

Manpower
(Nr of persons)

Gross working time
(hr/ha)

Productivity
(t/ha or t/hr)

Fuel consumption
(l/hr)

Manual Alignment	<input type="checkbox"/>	

Windrowing	<input type="checkbox"/>	

Integrated harvesting/treatment	<input checked="" type="checkbox"/>	1
_____	2.0	1.6 t/h
_____	n.a.	

Hauling	<input type="checkbox"/>	

Treatment at field side	<input type="checkbox"/>	

Disposal/dumping of biomass

End product properties

Specify the properties (moisture,bulk density,particle size,ash) of the prunings after treatment and harvesting, if known

Moisture (% a.r.) 33.7
Particle size (cm) Similar to

Losses of biomass after harvesting

(%) _____ or (tonnes/ha)
Bulk density (kg/m³) 178
Ash content (% dry basis) _____

Problems encountered due to the field

Soil uneven
 Slope

Stones
 Too much grass

Problems encountered by the machines

Not suitable for the pruning
 Manouvering

Unsuitable feeding system (biomass difficult to be conveyed)
 Too much soil particles with the biomass to be treated

Problems in discharge

Performance of the machinery

The machinery was performing better than expected
 The machinery was performing normally-typical expected
 The machinery was underperforming

Value Chains

Indicate if your experience is based on an isolated test or if it based on an existing value chain:
 My experience is just an experimental trial-machinery test
 My experience is part of an existing value chain

Contact Data

Name : Daniel García Galindo

Email :

Phone :

Profession :

Country : Spain

References-External

links:Provide references on which the information is based on or highlight any comments

EuroPruning Deliverable D6.2, CIRCE, 2016. Results with conclusions of each demonstration (by zone)
www.euopruning.eu



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Photos



