

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

Municipality : Ancona

Latitude : 43.600171

Longitude : 13.465441



Field Size (ha) 3.29

- Crop Species
- | | | | |
|-------------------------------------|---|-------------------------------------|----------------------------------|
| <input type="checkbox"/> olives | <input checked="" 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 Verduzzo

Age of crop 20

Density of crop (trees/ha) 3000

Width between cultivated rows (m) _____

Distance between trees (m) _____

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 organic low intermediate
 high

Specify the amount of fertilizer and pesticides

Pruning Operations Performed (prior to measurement)

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

Check as many as apply

- | | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> January | <input type="checkbox"/> February | <input type="checkbox"/> March | <input type="checkbox"/> April |
| <input type="checkbox"/> May | <input type="checkbox"/> June | <input type="checkbox"/> July | <input type="checkbox"/> August |
| <input type="checkbox"/> September | <input type="checkbox"/> October | <input type="checkbox"/> November | <input type="checkbox"/> December |

Frequency of pruning

- | | | | |
|--|-----------------------------------|-----------------------------------|---|
| <input checked="" type="checkbox"/> annual | <input type="checkbox"/> biannual | <input type="checkbox"/> biennial | <input type="checkbox"/> Once per years |
|--|-----------------------------------|-----------------------------------|---|

Was this type of pruning performed as usual ?

- | | | |
|---|--|--|
| <input type="checkbox"/> Yes, it was performed as usual | <input type="checkbox"/> No, less intense than usual | <input type="checkbox"/> No, more intense than usual |
|---|--|--|

Describe the ammount of prunings produced compared to other years

- | | | |
|------------------------------------|------------------------------------|-------------------------------|
| <input type="checkbox"/> Much Less | <input type="checkbox"/> Less | <input type="checkbox"/> Same |
| <input type="checkbox"/> More | <input type="checkbox"/> Much more | |

Reason for different ammount of prunings produced ?

- | | |
|--|---|
| <input type="checkbox"/> Pruning Intensity | <input type="checkbox"/> Accumulation of previous years |
| <input type="checkbox"/> Weather | |

Pruning Measurement

Date of Measurement
(DD/MM/YY)

2011

Mode of measurement

Specify the method used for pruning measurement

Per tree



One or several single trees selected. Biomass per tree collected manually and weighted

Per parcel (e.g. 100m²) in bags



One or several parcels selected. Each parcel several trees. Biomass per parcel collected manually and weighted

Per several rows (or in whole field)



On large parcel, or a whole field is selected. Biomass collected and loaded to a truck. Weight of the load taken on a scale for trucks

Amount of prunings obtained (t/ha)

Specify the tonnes per hectare of prunings collected from the crop

2.3

Losses of prunings that weren't harvested (t/ha)

How many days the prunings were on soil before measuring (days)

Moisture content (%)

Specify the moisture content (%) of the biomass collected if available

44.8

Raffaele Spinelli, Carla Nati, Luigi Pari, Enzo Mescalchin, Natascia Magagnotti, Production and quality of biomass fuels from mechanized collection and processing of vineyard pruning residues, *Applied Energy*, Volume 89, Issue 1, January 2012, Pages 374–379 Data obtained from EuroPruning Biomass Ratios Database, through the Task 3.1 and Deliverable D3.1 Mapping and analysis of the pruning biomass potential in Europe.

