



Guidelines for the incorporation and transformation of the agri-waste in the PHENOLEXA biorefinery

Raw material: Olive pruning wastes

COUNTRIES

Spain
Italy
Greece

PRODUCTION LOCATIONS

Farms
Wood industry
Gardens

MAIN ACTORS

Farm owners in some cases olive mills proper
Wood craftsmen
Gardeners
Pruning personnel

COSTS AND REQUIREMENTS



Is estimated the average is 2.5t per hectare of twigs and 1.0t per hectare of wood.

COSTS:

- Transport: 36.30€/h or 18.71€/ha
- Chipping: 14.60€/h or 11.80€/ha

REQUIREMENTS:

Volume of pruning depends on farming method (traditional, intensive or ultraintensive)

- Large variability in the size of remains.

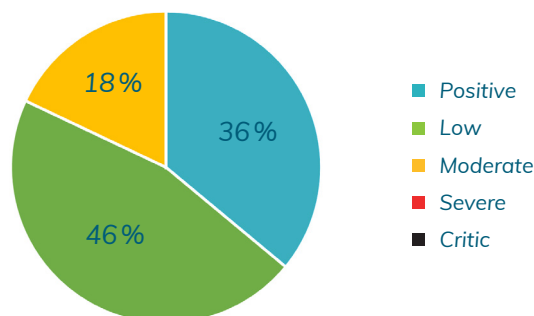
CURRENT PRACTICES ON WASTE MANAGEMENT

On-field mulching

ACTIVITIES

- On-field management
- Manual pruning
 - Mechanical chipping
 - Mixing and incorporation into the soil

IMPACTS



This project has received funding from the Bio-based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101023225. The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio-based Industries Consortium.



Guidelines: Olive pruning wastes



CURRENT PRACTICES ON WASTE MANAGEMENT

On-field burning

ACTIVITIES

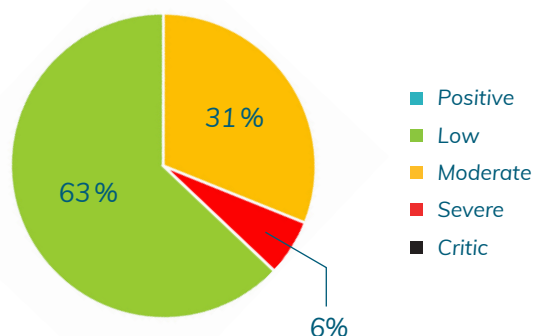
On-field management

- Manual pruning
- Mechanical collection

Collection and treatment of wastes

- On-field staking
- Shoots burning

IMPACTS



Pellets production

ACTIVITIES

On-field management

- Raking
- Trailer forwarder

Collection and treatment of wastes

- Transport to plant
- Raw material collection
- Natural drying

In-plant pre-processing

- Vine shoot crusher
- Trommel screening

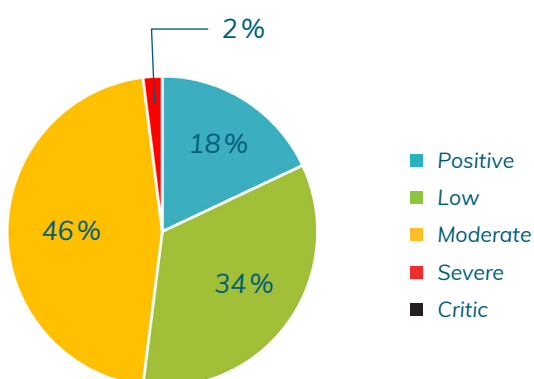
Cleaning of improper

- Recover stones and metals
- Recover micro sliver
- Production of pellets

Use of the resource

- Pellet transport to boiler
- Combustion

IMPACTS



RECOMMENDATION

Olive pruning residues: Take the residues piled up prior to disposal by combustion or mulching.



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