

## Date palm organic amendment production

Recommendations based on ISFERALDA project results

### Compost production

**Aim: decrease mineral matter, salinity and increase compost maturity**

- Proportion of 70% date palm residues, 30% manure
- Have a concrete structure for production to limit contamination by mineral particles and be able to collect compost juices. → **mineral matter content**
- Cover the compost windrows with a tarpaulin or roof to limit wind input and evapotranspiration. → **salinity**
- If possible, use good quality, low-salt water to moisten windrows. → **salinity**

### Biochar production

- Pyrolysis temperature around 450°C → **Good balance between porosity, chemical stability and water retention**
- Atmosphere that can contain a few % of oxygen during pyrolysis. A pure nitrogen flow is not mandatory to obtain quality biochar. → **Possibility of using an industrial or artisanal pyrolyzer**
- Optionally rinse the biochar several times to leach out soluble salts. On the other hand, rinsing leads to loss of nutrients such as K. Priorities must be identified before rinsing biochar. → **Optimizing the quality of biochar**
- Use, if possible, a part of date palm residues as a heat source for pyrolysis of the other part. allows not to use fossil energy. → **Improve carbon footprint**