Forest Certification for Poplar Plantations: a new market opportunity

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Poplar in Italy

**Poplars Planted**  
118,691 ha

- Production 80 %
- Protection 20 %

- Plant density = 250-330 trees per ha
- Rotation = 10 years
- Timber production = 200 m³/ha
- Mean annual increment = 20 m³/y
- Tree volume = 0.7 m³
- Annual plantations = 6-7,000 ha

PLYWOOD  
the main product
<table>
<thead>
<tr>
<th>Criticalities of Poplar culture in Italy</th>
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<tbody>
<tr>
<td><strong>fragmentation</strong></td>
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<td><strong>25,000 poplar farms</strong></td>
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<td><strong>pulverization</strong></td>
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<td><strong>3 ha per poplar farm</strong></td>
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<td><strong>monoclonality</strong></td>
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<td><strong>I-214, 80% of poplar stands</strong></td>
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<td><strong>(13 clones in France = 80%)</strong></td>
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<td><strong>high costs of production</strong></td>
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<td><strong>low or null net income</strong></td>
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</table>
1 hectare of poplar (10-12 years)
200 t of wood (trunks, branches, stumps)

183 t CO₂ absorption
6-12 t CO₂ emission (fuel only)
50 t Carbon stocked

35 toe (ton oil equivalent)

Commercial value 11,000 €/ha
Energetic value 15-20,000 €/ha
Environmental value 35 toe (ton oil equivalent)
1997-2000

the Poplar Institute, through the ECOPIOPPO programme, faced the question connected with the environmental sustainability of poplar plantations, to resolve the conflictual relationship poplar-sensitive area

Poplar production standard
(a low intensity cultivation model)
2004 - 2007

Basis of Standards of Forest Management
adopted by Forest Certification schemes

FSC and PEFC

Certification of Wood Chain System
Schemes of Certification for poplar plantations in Italy

**FSC** *(Forest Stewardship Council)*

Only in Italy and in Chile exist the specific standard for poplar.

**PEFC** *(Programme for the Endorsement of Forest Certification schemes)*

Certification of Sustainable Poplar Plantation Management (ITA 1004-1)
Types of Certification in the Wood Chain System

- Certification of Sustainable Forest Management (SFM)
- Certification of “Chain of Custody” (CoC) or “Traceability” of wooded products
Certification of Sustainable Forest Management

The management plan regards

- disease risk reduction (policlonal plantations for large farms)

- cultivation practices reduction

- chemical product application reduction (disease control)

- fertilization reduction

- irrigation-water management and control

- water-course protection

- safe harvesting methods

without affecting the wood quality
SFM reduces cultivation costs

- Phitosanitary treatments: -30%
- Cultivation: -15%
- Fertilization: -40%
The direct costs of certification affect the final value of plantation by 2-3% in the case of certification group (group of smallholders)
Demand for certified poplar wood
Plywood industry

- in **2005** 30% of poplar wood was imported from France, Belgium, half was certified the certified wood was the **15%** of total used

- in **2007** the trend was confirmed

- in **2008** the industry demand more certified wood
Today about **3,600** hectares of poplar are certified, in particularly in Piedmont, Lombardy and Friuli V. G., PEFC 80%, FSC 20%

<table>
<thead>
<tr>
<th>Region</th>
<th>PEFC ha</th>
<th>FSC ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piedmont</td>
<td>1025</td>
<td>110</td>
</tr>
<tr>
<td>Friuli V.G.</td>
<td>1755</td>
<td></td>
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<tr>
<td>Lombardy</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>other</td>
<td>200</td>
<td>80</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>2980</strong></td>
<td><strong>590</strong></td>
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</tbody>
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Piedmont and Friuli V.G. regions have paid part of direct costs
The CRA – PLF (Poplar Institute), in cooperation with the Piedmont Region, has recently developed a web-portal to assist and support poplar farmers in the management practices required by the two certification schemes.

Poplar Forest Certification
This integrated information system allows to share of information and strategies on poplar certification schemes, as well as providing access to a database of certified plantations in Italy.
Certification of Sustainable Forest Management

in general

- to warrant the wood traceability
- to contrast wood illegal trade
- to support the short chain system
Conclusions

The Forest Certification of Poplar will not resolve the crisis of poplar in Italy but it will provide a new market opportunity for poplar farmers and for the industry.
Poplar’s traceability

Poplar’s birth in mythology
detail (Martino Silvestri Collection - Turin)
Thank you for your attention

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