



FACTS AND FIGURES

Philippe Ruch

Definitions

Simple Coppice: forest whose trees have been regenerated at the same time, by allowing regrowth from cut stumps or root suckers. Thus, all trees are even-aged and are about the same size (diameter and height).

Compound coppice with standards system: forest stand composed of high forest (broad-leaves or coniferous, even-aged or uneven-aged) and coppice, side by side or stacked.

Delpech R. et al., *Typologie des stations forestières – Vocabulaire*, IDF, 1993

Short Rotation Coppice (SRC): rotation from 7 to 10 years, objective is to produce small trees (diameter 15 cm, height 15-18 m).

Very Short Rotation Coppice (VSRC): rotation from 2 to 4 years, objective is to produce small shoots (diameter 3 - 5 cm, height 4-8 m).

Berthelot A., *Produire de la biomasse avec des taillis de peupliers*, AFOCEL, 2007

Taillis simple: peuplement forestier composé d'arbres issus de rejets et drageons auquel est appliqué un traitement régulier. De ce fait, il est constitué d'arbres de dimensions (diamètre, hauteur) voisines et il est équienné.

Mélange de futaie et taillis: peuplement forestier constitué d'une futaie feuillue et/ou résineuse, régulière ou irrégulière, superposée ou juxtaposée à un taillis.

Taillis à Courtes Rotations (TCR): rotations de 7 à 10 ans, objectif produire de petits arbres (15 cm de diamètre, hauteur 15-18 m).

Taillis à très courtes rotations (TTCR): rotations de 2 à 4 ans, objectif produire beaucoup de petits brins (3 à 5 cm de diamètre; hauteur 4 à 8 m).

Legal Framework

Forest-related activities naturally have to comply with the National (French) Forest Policies. Logging operations, which are not planned in a approved management document, are generally subject to an application for authorisation. It varies according to the situation of the forest and the size of the clear-cut.

Statistics

Simple coppice forest structures represent 1.7 million ha (11% of the French forests) and compound coppice with standards system 4.7 million ha (30%).

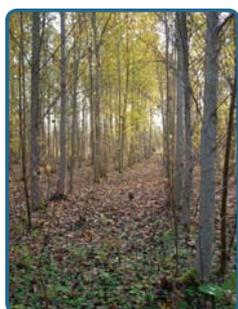
Source: National Forest Inventory, 2013. Les résultats des campagnes d'inventaire 2009 à 2013.

Short-Rotation Coppice (SRC) and Very Short Rotation Coppice (VSRC) cover merely a few thousand ha in France and are therefore quite marginal.

Typology

Simple coppice	Mediterranean coppices (<i>Quercus ilex</i> and <i>Quercus pubescens</i>): 52% of the simple coppice area and <i>Castanea sativa</i> , 13% of simple coppice; more locally, there are also coppiced <i>Fagus sylvatica</i> in the mountains, <i>Quercus robur</i> and <i>Quercus petraea</i> and more marginally <i>Alnus glutinosa</i> and <i>Robinia pseudoacacia</i> .
Coppice with standards	<i>Carpinus betulus</i> , <i>Quercus robur</i> or <i>Quercus petraea</i> coppices and standards of common oaks on clayey loam soils in central and northeastern France. Other species such as <i>Betula verrucosa</i> , <i>Fagus sylvatica</i> and <i>Populus tremula</i> can also be found in such situations; Common oaks, chestnut or birch coppice and sessile oak standards on poorer siliceous soils in central and western France.
Pollarding	Only in some rural regions (<i>Quercus</i> and <i>Fraxinus</i> mostly)
Short rotation coppice	SRC: <i>Populus</i> , <i>Eucalyptus</i> , <i>Robinia pseudoacacia</i> VSRC: <i>Populus</i> , <i>Salix</i> , <i>Robinia pseudoacacia</i>

Images



DESCRIPTION

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Until the industrial era, coppice and coppice with standards were the dominant silvicultural systems in French hardwood forests. The main function of coppice was to supply wood fuel (as logs, bundles or charcoal) for domestic or industrial consumption (forges, glassware, etc.). In some regions, the bark from chestnut and holm oak was also an important resource for tanning. A great conversion campaign towards high forest management started in the middle of the 19th century in public forests. This was connected to the utilization of coal and the depletion of forests. This trend has continued up to the present.

Furthermore, the rural exodus of the 20th century and the attractiveness of fossil fuels have led

to the abandonment of coppice management after the 2nd World War. Thus, a significant part of the coppice has been converted by planting coniferous species, which was strongly encouraged through subsidies. Nowadays, there is a renewed interest for firewood due to the rising energy costs and the development of the bioenergy economy.

Compared to the overall 15.7 million ha forest production area, simple coppice forest structures represent 1.7 million ha (11% of the forests) and coppice with standards, 4.7 million ha (30%).

France has a great diversity of forest environments and species linked to diverse geological contexts (acid soils and calcareous soils) and climates (Mediterranean, oceanic, continental

and mountain). Thus, the main types of coppice in France, also a result of human choices, are:

- Mediterranean coppices of holm oaks (*Quercus ilex*) and pubescent oaks (*Q. pubescens*), which represent 52% of the simple coppice area; coppicing is still the main silvicultural system and firewood the principal product;
- Chestnut coppice (*Castanea sativa*), 13% of simple coppice, whose main products are industrial timber, stakes and parquet. Thinning-driven conversion to high forest is sometimes undertaken by owners of land with rich soil. Conversion by plantation is an alternative option often chosen for declining stands;
- More locally, there are also coppice of beech (*Fagus sylvatica*) in the mountains. Common oaks (*Quercus robur* and *Quercus petraea*) and more marginally black alder (*Alnus glutinosa*) or black locust (*Robinia pseudoacacia*) can also be found as coppice;
- Mixed forest structures, composed of coppice with standards. Industrial wood (for the pulp and panelboard mills) and wood energy (logs and more recently wood chips) are the two main value chains for the coppice products. In these stands, forest management is mainly focused on the standards in order to produce timber, which is more valuable. Two main types are represented:
 - hornbeam (*Carpinus betulus*) or common oaks (*Quercus robur* and *Quercus petraea*) coppice and standards of common oaks on clayey loam soils in central and northeastern France. Other species such as birch (*Betula verrucosa*), beech (*Fagus sylvatica*) and aspen (*Populus tremula*) can also be found in such situations;

- common oaks, chestnut or birch coppice and sessile oak standards on poorer siliceous soils in central and western France.

Although this diversity highlights that coppice structures are still widely present in French forests, their forest management and utilization tend to be taken for granted.

Short-Rotation Coppice (SRC) and Very Short Rotation Coppice (VSRC) cover merely a few thousand ha in France and are therefore quite marginal. The first poplars and eucalyptus SRC plantations for pulp wood purposes date back to the 1980s. More recently (2008 to 2012), an attempt has been made to introduce VSRC and SRC on agricultural land for energy purposes, mainly with black locust, poplar and willow. However, this trend has not been pursued due to low profitability. Currently, only eucalypt SCR continues to be planted in the southwest of France.



Figure 1. Hornbeam coppice with pedunculate oak standard in northeastern France (left) and chestnut coppice in western France (right)

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- National Forest Inventory, 2013. *Les résultats des campagnes d'inventaire 2009 à 2013*, pp 20-34.

FORESTRY REGULATIONS

Jenny Mills, Peter Buckley and Philippe Ruch

The **Code Forestier** contains the laws regulating French forests. Interpretation and implementation of the Code filters down through various levels of Government documentation including les Orientations Régionales Forestières (**ORF**), which describe the sustainable management objectives of forestry policy for regional administrative areas taking into account economic, environmental and social issues. They specify the broad guidelines to be followed by the entire forest industry and concern all public and private forests and sector participants (foresters, forestry companies, manufacturers and wood processors). The ORF sets forest policy at a regional level as well as general action programs for the **DRA** (Directive Régionale d'Aménagement des forêts domaniales), **SRA** (les Schémas Régionaux d'Aménagement des forêts communales), and, for private forests, **SRGS** (le Schéma Régional de Gestion Sylvicole).

If a forest-owner has an approved sustainable management document, then planned coupes and other management operations do not usually need separate authorisation. For public or community forests, the “aménagement” constitutes the sustainable management document.

In private forests, there are 3 principal types of sustainable management documents, depending on the size of the forest and the owner's choice:

PSG (plan simple de gestion)

Obligatory where the cumulative area of the owner's forest plots located in the same municipality is equal to or greater than 25 hectares (a continuous area or the sum of fragmented patches over 4 ha in nearby municipalities). The plan lasts for 10 - 20 years and is approved

by the CRPF*. A voluntary PSG can be carried out for properties between 10 and 25 hectares.

*Centre Régional de la Propriété Forestière France is divided into 11 CRPFs, delegated from the Centre National de la Propriété Forestière, a public advisory and management service for forestry owners. They are administered by elected forest owners and run by a team of forestry engineers and technicians. They direct and promote improved management of private forests.

RTG (règlement type de gestion)

An optional management document that is intended to define management arrangements for owners of forest of between 10 and 25 ha. It is overseen by an ‘organisme de gestion et d'exploitation en commun’ (OGEC*) and leads to at least 10 years of commitment.

*An OGEC is an organisation of proprietors for communal forestry management and exploitation. It can be a cooperative or management syndicate or an association of forestry proprietors as defined by a specific law.

CBPS (code des bonnes pratiques sylvicoles)

An optional document for small properties, drafted by the Centre Régional de la Propriété Forestière (CRPF) and validated by the Prefect of the region, which includes the essential recommendations by type of stand consistent with sustainable management. The owners adhere to it for a period of at least 10 years.

What regulations must be followed if wood is to be harvested? In privately-owned forests, whatever the size of the property, 2 cases may apply depending on whether a management plan has been established or not.

i) If such a plan exists, its compliance with the regional directives has been approved by the authorised administration and a harvesting operation need only comply with the plan (i.e. it meets the management objectives).

ii) If there is no management plan, then the harvesting operation will fall under specific regulation. The most common situations are:

- If the size of the future operation is > 4ha[†] and more than half of the volume of the standing standards are to be harvested: the operation needs to be authorised by the county administration (DDT - la Direction Départementale des Territoires)

- If the operation is a final felling (or clearcut) > 1ha[†] in a forest larger than 4ha[†]: the stand must be re-established (regeneration or plantation) at the latest 5 years after harvest

- Moreover, some forests may fall under municipal jurisdiction: they are classified in EBC (Espaces boisés classés), areas that need to be preserved (clearcuts for coppice are only allowed if they are considered a “usual” harvesting operation, every operation has to be approved by the municipal council).

Independently of the existence of a management plan, the location of the forest can also be subject to specific environmental regulation according to the nature of the area (specific protection status such as, e.g. Natura 2000, water).

...

An exception is made for cuts that are for the owner’s own domestic use for firewood or for his agricultural fencing requirements, but not for timber. Where the firewood is sold, or more than a third of it is given away, authorization is necessary. The relevant article in the Code Forestier (L312-10) does not indicate what quantity or diameter of wood can be cut for the owner’s domestic use.

Cutting of poplar plantations is not affected by these regulations. Thinning necessary for the good management of softwood stands will be authorized.

From a general point of view, clear-cuts or stand regeneration will be allowed where the stand has reached or exceeded the minimum age of exploitability defined for that type of stand in the Scheme of Regional Woodland Management (SRGS). For younger stands, an analysis is made on a case by case basis.

Penalties

Cutting without authorisation is illegal according to articles L313-11 et L362-1 of the Code Forestier. The agent or proprietor will receive a fine of € 20,000 per hectare for the first two hectares and € 60,000 for each supplementary hectare.

Obligatory renewal after clearcutting

All stands of 1 ha[†] or more in one piece located in a forest larger than 4 ha[†], regardless of stand type (standards, coppice-with-standards or simple coppice), belonging to one owner or tenant, must be restocked. This can be by regeneration or planting.

Zones where other legislation can apply

Some logging may also be subject to other regulations, for example, in wooded areas classified as an EBC*, and in, or near other protected environmental (including Natura 2000 sites), historical or architectural sites.

*Under Article L. 130-1 of the Town Planning Code (Code de l’urbanisme), a ‘plan local d’urbanisme’ (PLU) can classify a site as an ‘Espace boisé classé’ (EBC) in order to protect or create woods, forests, parks, individual trees, hedges and plantations. This also takes account of the ‘Grenelle II’ laws relating to the national commitment to the environment. Cutting

[†] Noted here are the most common cases; the actual figures are decided upon by the regional Prefect.

of mature coppice can be exempt from prior notification in an EBC as long as renewal is satisfactory and other restrictions on cutting of the standards observed.

Natura 2000 sites

There are no supplementary formalities for Natura 2000 sites for felling or woodland management, but these must be in accordance with existing regulations relevant to the site. Each Natura 2000 site has a 'document d'objectifs' (DOCOB), which sets out the management objectives for the site and how they are to be achieved, among other things.

A PSG or RTG cannot be approved for a Natura 2000 site if the coupes or forestry work affect the site's conservation status. The CRPF has the responsibility of assessing if the types of management proposed in the PSG or RTG are likely to have a significant effect on the Natura 2000 site. It is they who have to decide whether or not to approve the PSG or the RTG.

If the owner asks the CRPF if he can benefit from Article L.122 of the Code Forestier* and if there is no significant effect on the habitat of the Natura 2000, a PSG will be approved.

If it is judged by the CRPF that the Natura 2000 site will be significantly affected by the proposals, the CRPF will ask the owner to amend his felling and management plan, but if the owner does not want to comply with the amendments, the owner will, at his own cost, be required to carry out an environmental impact assessment. If not, the CRPF will refuse to approve the PSG.

* In the past an owner had to ask permission for every type of management that could make an environmental impact on the various types of environmental and other zoning. Articles L 122-7 and 8 of the Forestry Code now allow an exemption from this during the time a PSG is valid for all the management and coupes specified in it, providing an application requesting this is attached to the PSG application.

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