



ASKAFOR

# TRAVAILLOSCOPES IN BACCARAT

TARGETED FORESTRY WORK  
IN CONTINUOUS COVER FORESTRY

OCTOBER 2022

**CONTENTS**

INTRODUCTION 1

TRAVAILLOSCOPES IN BACCARAT 2

Work of the travailloscope 3

Point 1 4

Point 2 5

Point 3 6

Point 4 7

Point 5 8

Strips 9

BIBLIOGRAPHY 10

# INTRODUCTION

Nowadays, many foresters are looking for alternatives to decrease the investment costs related to forest renewal (planting and care). Many are turning to more cost-effective forestry, taking greater advantage of natural dynamics and continuous cover forestry. In addition, the current context of climate change and biodiversity loss is increasingly being taken into account in forest management. Even-aged single-species softwood stands, which are particularly affected by health threats, are not without their limitations. There is an urgent need to achieve greater forest resilience from both an economic and ecological point of view.

With irregular stands, work is limited to a strict minimum, which is made possible by the longevity of the cover and the support of the young tree stems. If the optimal conditions are not met (large fauna, competition, weeds, etc.) and the natural dynamics move away from the forest manager's objective, forestry work is necessary. Without this, existing opportunities will be lost.

The targeted work differs from traditional practices in that, instead of a «single-task» forester working systematically, there is a forester who acts autonomously and in a multifunctional way by focusing on what makes the stand valuable.

With the QD (qualification-dimensioning) method, **80% of net income** is derived from only 20% of wood production.<sup>35</sup>

The travailloscope ("workscape"—stimulating the work of forestry workers) is, like the marteloscope ("hammerscope"), a life-size exercise that deals with themes related to forestry work, such as:

- Observation and understanding of the natural dynamics of young stands
- Identification of development phases and key moments of intervention
- Getting to know the tools, techniques and their costs.

« The establishment of a future generation of trees capable of very high-quality output never requires full-scale operations. Existing or fostered favourable conditions on small plots are sufficient to achieve this demanding goal.. »

GEORG WILHELM, HELMUT RIEGER  
(LANDESFORSTEN RHEINLAND-PFALZ)

The purpose of the training associated with the travailloscope is to strengthen the skills of the professionals responsible for carrying out forestry work. Indeed, the training of forestry workers and the recognition of manual work, combined with technical reflection, are the basis for quality work.

The subject of forestry work is very broad and there is a real need for training for all those involved in forestry. In order to make the material digestible, we have chosen to divide this theme into several different and complementary thematic courses. The Baccarat travailloscope is a training tool that mainly deals with the following topics: species behaviour, diagnosis of renewal issues, types of forestry work, proportioning of interventions, management of degraded stands.



# TRAVAILLOSCOPES IN BACCARAT

The Baccarat travailloscope is located in plot 220 of the Baccarat municipal forest, in the east of the Meurthe-et-Moselle department. Management is carried out by the National Forestry Office.

The site is located at an altitude of approximately 330 m. The stand is a beech-oak forest on acidic soil, with a large diversity of species. The soils are deep but acidity can be a limiting factor for some species.

This plot was heavily damaged by the 1999 storm. Some of the stands were destroyed but these areas are now being regenerated. Another part has been only partially affected, and the dispersal of the stands has favoured the emergence of a diversified regeneration.

The heterogeneity of the distribution of the wood capital and the natural dynamics led to a more mixed management of the plot.

The stand is currently dominated by sessile oak, European beech and fir. Scots pine is also present, but limited in extent. The level of standing crops is very unevenly distributed, with some areas hard hit by the storm and others still very well established. The plot is dominated by large and medium-sized trees.

The regeneration, which began after 1999 and was sustained by regular maintenance, is very diverse: in addition to oak, European beech and fir, pine, birch, wild cherry, rowan and European hornbeam complete the mix.





## WORK OF THE TRAVAILLOSCOPE

The Baccarat travailloscope offers two types of exercises:

- A succession of designated **checkpoints**, where a set of seedlings are labelled in a small area (50 to 100 m<sup>2</sup>). On this equipment, operators can virtually choose which stems to target, what management to apply to them and which stems to remove for their benefit.
- Two marked out **strips** divided into 15 m x 15 m sections. This device makes it possible to mimic the route taken by an operator (supervisor or worker) and the decision “in advance” to intervene or not in forestry work.

### POSSIBLE INTERVENTIONS

On a targeted stem:

- Nothing
- Pruning
- Formative pruning
- General and formative pruning
- Individual protection

On a competing stem

- Removal
- Pruning of competing branches
- Individual protection

Area-wide

- Collective protection
- Planting



POINT 1

Gap composed of 5 species: fir in the pole stage, European beech, oak and rowan in the thicket and sapling stages.



Stem No.	Work to be done	For the benefit of (n°)	Height if pruning
Ex.	Formative pruning	12	1m50
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POINT 2

Gap with various species in the pole stage: fir, pine, birch, oak and European beech.



Stem No.	Work to be done	For the benefit of (n°)	Height if pruning
Ex.	Formative pruning	12	1m50
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POINT 3

Gap with oak saplings and thickets overhung by beech thickets and saplings. No intervention has been carried out in this area.



Stem No.	Work to be done	For the benefit of (n°)	Height if pruning
Ex.	Formative pruning	12	1m50
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POINT 4

A very dense gap with many oak and European beech saplings as well as European hornbeam.



Stem No.	Work to be done	For the benefit of (n°)	Height if pruning
Ex.	Formative pruning	12	1m50
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POINT 5

A diverse gap with oak, European beech, European hornbeam, wild cherry and alder buckthorn in the sapling and pole stages.



Stem No.	Work to be done	For the benefit of (n°)	Height if pruning
Ex.	Formative pruning	12	1m50
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## STRIPS

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# TRAVAILLOSCOPES IN BACCARAT

## Targeted forestry work in continuous cover forestry

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Forestry work is a major commitment for foresters. Many foresters are looking for alternatives to reduce investment costs related to forests in the current economic climate. Many are turning to more cost-effective forestry, taking greater advantage of natural dynamics and continuous cover forestry.

The purpose of the training associated with the travailloscope is to strengthen the skills of the professionals responsible for carrying out forestry work. Indeed, the training of forestry workers and the recognition of manual work, combined with technical reflection, are the basis for quality work.

The Baccarat travailloscope is a training tool that mainly deals with the following topics: species behaviour, diagnosis of renewal issues, types of forestry work, proportioning of interventions, management of degraded stands. The tool is based on a plot of beech-oak forest in the hilly area of the “Vosges gréseuses” area (the sandstone Vosges).

Training support document:

**Travailloscopes in Baccarat.**  
**Targeted forestry work in continuous cover forestry**

More information on continuous cover forestry : [prosilva.fr](http://prosilva.fr)

