

DATA DOCUMENTATION ON LIVING TREES

POPLAR GROVE PLOT – CAMPAIGNS 2017-2018

Preface

On the poplar grove plots, standing living poplars (with diameter at 1.30m over 7.5cm) are selected either following a specific tree selection process on the plantation lines (only when the inventory plot is inside the plantation grid), or on a 9m radius circular plot centered on the inventory point. The specific process consists on an estimation of the number of missing poplars on the 9 spots (of poplars initially planted) the closest of the inventory point and on a measure of the 4 closest standing living poplars. This process gives a better ponderation of the weight (selection probability) of the poplars within large-grid plantations.

All the other trees of other species with a diameter at 1.30m over 7.5cm, and all poplars in a different configuration, are selected on the same circular plots as a forest plot:

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|------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 6m radius circular plot: selection of trees of "small diameter" | $(23.5 \leq C13^* < 70.5 \text{ cm} \Rightarrow 7.5 \leq D13^* < 22.5 \text{ cm})$ |
| 9m radius circular plot: selection of trees of "medium diameter" | $(70.5 \leq C13^* < 117.5 \text{ cm} \Rightarrow 22.5 \leq D13^* < 37.5 \text{ cm})$ |
| 15m radius circular plot: selection of trees of "large diameter" | $(C13^* \geq 117.5 \text{ cm} \Rightarrow D13^* \geq 37.5 \text{ cm})$ |

*C13 is the circumference at 1.30m and *D13 is the diameter at 1.30m.

On each inventory plot, from 0 to n trees have been selected, strictly following the trees' selection process.
On each poplar grove plot, approximately 5 trees are inventoried, with $\frac{3}{4}$ being poplars.

Since 2014, this tree population is divided into 2 categories in the field:

- The not simplified trees are completely measured; these trees are randomly selected once the species and the diameter of all the trees have been entered into the filed computer. One tree by species and by diameter class is systematically selected, as well as all the very large diameter trees.
- The simplified trees are not measured for their total height, radial increment, height at the first timber and type of cut.

Exhaustive listing of the raw data

Except if mentioned, all the raw data are collected in the field.

IDP: inventory plot ID
A: tree ID
VEGET: vegetation state
SIMPLIF: simplified tree indicator
ACCI: tree accident
ESPAR: tree species
CLON: clone or poplar cultivar
ORI: tree origin
LIB: rate of free growing trees
FORME: shape of the tree canopy
TIGE: shape of the tree stem
MORTB: tree branches mortality into the canopy
SFGUI: presence of mistletoe
SFGELIV: presence of winter injury
SFPIED: injury or rot at the bottom of the tree
C13: circumference at 1.30m (cm)
HTOT: total height (m)
HDEC: height at the first timber (m)
DECOUPE: type of cut (modification 2017)
QUALITE: tree quality // R: scrap rate
LFSD: stem length without default (m)
AGE: age at 1.30m
V: Tree volume (calculated)
W: ponderation coefficient of the tree (calculated)