

Short Rotation Woody Crops (SRC) plantations for local supply chains and heat use

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## *Intermediary report on best practice visits*

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# Harvest demonstration

## 1. Introduction

As SRC harvesting is considered as an obstacle to the development of SRC plantations, a best practice visit has been organised to demonstrate a new harvest machine, the Ny Vraa harvester.

This harvest demonstration has been organised with the RMT Biomasse, coordinated by the Chamber of Agriculture. The demonstration took place in Haut de France Region and Normandy Region on the 15 and 16 of March 2016, with the harvesting machine from the Danish Ny Vraa Bioenergy Compagny.



## 2. Site description

The first harvest demonstration was implemented on a tree-year-old plantation in Sacy Le Grand and the second one on two stripped tree-year-old plantation in Biville la Baignarde. Plots are located in green colour on the maps below.



### 3. Harvester characteristics

The harvester is based on technology for harvesting corn and sugar cane.

The harvest machine can be hitched to tractor on the front hitch or with a post reversed on the back hitch.

The main characteristics are similar to the forage combine harvester. A head harvester fitted to circular saws can make falling down the stems with a push bar. Then the action of rollers with vertical axes, combined with the advancement of the machine, allows the rods to fall horizontally to a rotor equipped with knives.

The machine requires a maximum power of 250hp. The tractor has to deliver a high flow of oil 130 L/min (photo 1). The machine weights 2.5 tons, it is easy to transport by truck (photo 2). The machine is able to harvest a double row. Each row is properly cut with a double saw (photo 3).

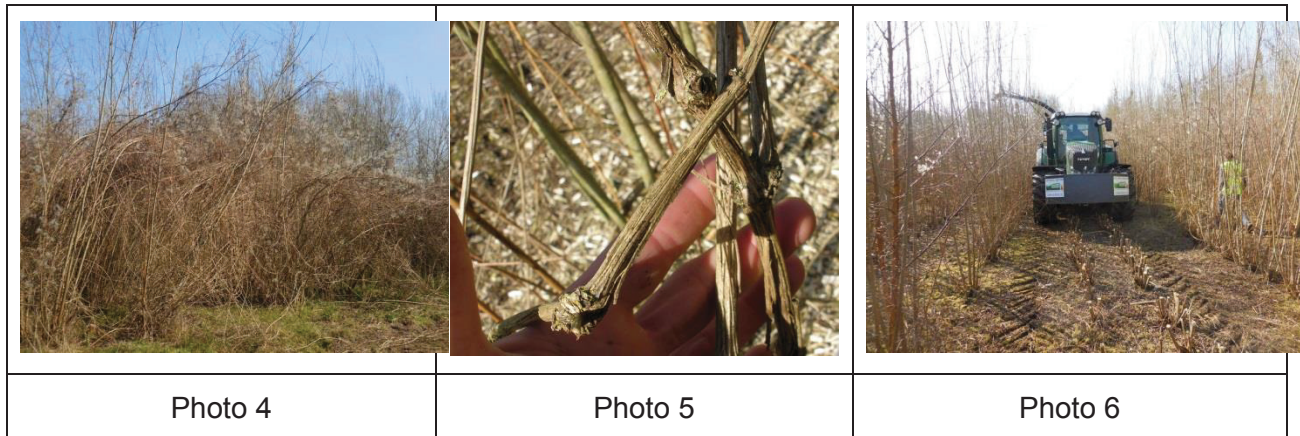
Ny Vraa company advices harvesting SRC every two years.



Source : Aile

### 4. Results of the harvest demonstration

The first spot has been invaded by weeds (photo 4), which made it difficult to harvest. Weeds were perennial woody climbing specie of clematis (photo 5). After 30m the driver had to stop the tractor and went back (photo 6).



Source : Aile

The size of the tree years old SRC was not too big to be harvested (photo 7) and the particule size of wood chip was good (photo 8). But it has not been possible to check the size properly due to the presence of clematis (photo 9).



Source : Aile

The farmers were invited to the second harvesting day in Biville la Baignarde (76). Thirty farmers were present (photo 10). Unfortunately, even if it was a two years old SRC, the size of the trees (photo 11 and 12) was really too small to appreciate the machine performances.



Source : Aile