

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

Project No: IEE/13/574



# ***Report on training event for farmers in Brittany, France***

**WP 3 – Task 3.4 / D 3.5**

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SRCplus website: [www.srcplus.eu](http://www.srcplus.eu)

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## 1 Introduction

At the Mecaélevage Fair in June 2016, AILE introduced the concept of planting trees at farm level, to advise farmers on a range of solutions including planting hedges, SRC and forestry.

AILE developed a training concept to present SRC as one of the solutions to plant trees at farm. Including SRC within a panel of solutions seemed AILE to be important. Hedge is an essential element of the natural heritage of the region and is endangered. A regional Plan to plant new hedges is being implemented. It was important to present SRC as a complementary solution to produce wood at farm.

A first training event for farmers has been organised in November 2016 and a second one in December 2016.

Two other events have been organised during the project, they were supposed to take place in February 2017. Unfortunately they have been postpone in March, the 8<sup>th</sup> of March for the training with Communauté de Communes du Val d'Ille and the 15<sup>th</sup> of March for the training with Communauté de Communes de la Roche aux Fées.

**Table 1: Training events for farmers in Brittany in France**

Location	Date	Number of participants	Number of received questionnaires
Plouguenast (Brittany)	29/11/2016	10	8
Le Neubourg (Normandy)	06/12/2016	14	0
Communauté de communes du Pays de la Roche aux fées	08/03/ 2017	Organised during SRC+ project - implemented after the end of the project	
Communauté de communes du Val d'Ille	15/03/2017	Organised during SRC+ project - implemented after the end of the project	

## 2 Overview of training events

### 2.1 Summary

The aim of the training events was to present different solutions to plant trees at farm (different types of SRC plantation, hedges), the positive impacts of woody plantations regarding water quality, biodiversity, and the energy production at farm.

### 2.2 Feedback from participants

The participants appreciated to be informed on the whole production chain from plantation to energy production. Global appreciation of the first training was 4/5. They appreciated the character of the event: the combination of theoretical knowledge-transfer and visits of woody plantations and wood boiler. We haven't received any questionnaire from the second training.

### 3 Training event 1

#### 3.1 Basic information

The training has been organised for a group of farmers from Haut-de-France Region who were interested in energy independency solutions at farm, and particularly on wood energy production.

It took place at the “Gaec ma Vallée” farm in Plouguenast, as a wood chips boiler and a plot of willow SRC can be visited on site.

Complementary visits have been organised to present SRC as a solution to irrigate treated wastewater from a biogas plant (Geotexia in Saint-Gilles-du-Mené, presented by Dominique Rocaboy) and hedge plantations.

Thierry Guéhenneuc from the “Terres et Bocages” organisation presented the hedge specificities on plantation, management.

Kevin Porre, from Le Mené Community, participated to the training to share Le Mené experience on SRC plantation and wood boiler development.

<b>Location/ Country: France</b>	<b>Partner. Aile</b>	<b>No. of event: 1</b>
<b>No. of participants: 10</b>	<b>Place: Plouguenast, Saint-Gilles du Mené</b>	<b>Date: 29/11/2016</b>
<b>Target groups: farmers</b>		

#### 3.2 Topics of the training event:

The following topics were discussed during the training events:

- Different rotation cycles/periods, depending on SRC density
- SRC establishment and maintenance (technics, recommendations...)
- SRC harvesting (technics, advantages...)
- Economical aspects of SRC
- Possibilities for the usage of the woodchips from SRC and other sources

Through visits, discovering different types of wood production and biomass uses at farm:

- Low density SRC , 4 000 to 5000 trees/ha (Plouguenast Plantation)
- High density SRC, 13 000 to 15 000 trees/ha (Saint Gilles des Bois site)
- Hedges management
- Wood energy valorisation at farm : hot water for the cheese plant, for heating households and heat exchanger to dry the forage
- Selling woodchips to municipality (6 wood boilers implemented in Le Mené)

### 3.3 Event agenda (invitation and programme)

TOPIC	SPEAKER	TIME	GOAL	SOURCES
<b>Heat from the boiler implemented in Gaec Ma Vallée : technical and economical aspects</b>	Pierre-Yves TANNIOU	1h	Illustrate different wood energy uses at farm Feed-back from an experimented farmer	Visit of the wood boiler
<b>Wood chips storage and quality</b>	Jacques BERNARD	15min	Show an example mixture of different wood sources and its advantages (SRC, hedge, forest)	Visit of the wood chips storage
<b>SRCplus project and SRC crops</b>	Jacques BERNARD	30 min	Present SRC+ project Understanding what SRC are (species, rotation cycles, soil, water requirements, production process in brief, yields.) SRC harvesting	SRC leaflet, SRC poster, SRC handbook, SRC web, materials from WP 3 (presentations), D.2.5
<b>SRC in the target region-current situation, opportunities and barriers Practical example from the target region</b>	Jacques BERNARD	15 min	Understanding the situation in Brittany. Explanation of the concrete case plantation and practical experience.	D. 2.1; D.2.2, Materials form study tour
<b>Sustainability of SRC</b>	Jacques BERNARD	15 min	Insight into recommendations and criteria for SRC	D.2.3; D.2.4
<b>Site visit of SRC implemented by Gaec Ma Vallée</b>	Jacques BERNARD	30min	See a low density SRC with local materials	D6.7
<b>SRC economics</b>	Jacques BERNARD	15 min	Presentation of plantation and harvesting costs	D 3.1
<b>Lunch</b>		1h30min		
<b>Site visit of SRC implemented by Geotexia (biogas plant) in St Gilles du Mené</b>	Dominique ROCABOY	30min	See a high density SRC with Swedish materials and present the water irrigation system and application	D6.7
<b>Site visit of different hedge implementations</b>	Thierry GUEHENNEUC	2h	Open the minds to other tree plantation on the farms	D6.7
<b>Transport between sites</b>		40 min		

### 3.5 Event photos



Photo 1 : The group at the wood chips storage including wood chips from SRC



Photo 2 : The group visiting the boiler and the hot water tank.



Photo 3 : Visiting a low density SRC of willows.



Photo 4. Double row hedge on a water supply protection catchment area.



Photo 5 : high density SRC plantation in Geotexia

## 4 Training event 2

### 4.1 Basic information

The training has been organised for a group of farmers from Normandy Region, interested in developing renewable energy projects with biomass.

It took place at in Le Neubourg and has been organised with the Regional Organisation for cooperatives for the use of agricultural equipment.

The cooperatives for the use of agricultural equipment “Haies'Nergie et Territoires” has initiated a project called "Terres d'Energies", aiming at innovating and testing the energetic valorisation of biomass.

The group was interested in an exchange on innovative solutions developed in France or in Europe on biomass valorisation.

Jacques Bernard, AILE, presented the SRC+ project and the multiple benefits of SRC.

<b>Location/ Country: France</b>	<b>Partner. Aile</b>	<b>No. of event: 2</b>
<b>No. of participants: 14</b>	<b>Place: Le Neubourg</b>	<b>Date: 06/12/2016</b>
<b>Target groups: farmers</b>		

### 4.2 Topics of the training event:

The following topics were discussed during the training events:

- SRC establishment and maintenance (technics, recommendations...)
- SRC harvesting (technics, advantages...)
- Economical aspects of SRC
- Environmental advantages



### 4.3 Event agenda (invitation and programme)

TOPIC	SPEAKER	TIME	GOAL	SOURCES
<b>Introduction</b>	GIEE Farmers	10h 15min	Presentation of the «Terres d'Energies» group and project	
<b>Biomass and energy</b>	Jacques BERNARD	10h15 15min	Overview of the energetic valorisation of biomass	
<b>SRCplus project and SRC crops</b>	Jacques BERNARD	10h30 15 min	Present SRC+ project Understanding what SRC are (species, rotation cycles, soil, water requirements, production process in brief, yields.) SRC harvesting	SRC leaflet, SRC poster, SRC handbook, SRC web, materials from WP 3 (presentations), D.2.5
<b>SRC in the target region- current situation, opportunities and barriers Practical example from the target region</b>	Jacques BERNARD	10h45- 15 min	Understanding the situation in Brittany. Explanation of the concrete case plantation and practical experience.	D. 2.1; D.2.2, Materials form study tour
<b>Sustainability of SRC</b>	Jacques BERNARD	11h 15 min	Insight into recommendations and criteria for SRC	D.2.3; D.2.4
<b>SRC economics</b>	Jacques BERNARD	11h 15 15 min	Presentation of plantation and harvesting costs	D 3.1
<b>Other type of non-food valorisation of biomass</b>	Philippe Cabin	11h30 30 min	Presentation of the other uses of biomass : carbonization, esterification, biomaterials	
<b>Lunch</b>		1h30min		
<b>Which projects in Normandy</b>	F. Valorge	2 hours	Working group on : <ul style="list-style-type: none"> <li>- Sources of biomass in Normandy</li> <li>- Which most promising uses ?</li> <li>- Which economical models?</li> </ul>	D.2.2



## Rencontre du projet « Terres d'Énergies »

Mardi 6 décembre de 10h à 16h30 (accueil dès 9h45)

dans les locaux de la FDCUMA 27 (Allée de la Croix Verte 27110 Le Neubourg)

### ■ Contexte et objectifs de la réunion

La Cuma Haies'Nergie et Territoires a initié un projet intitulé « Terres d'Énergies », visant à structurer un groupe de réflexion / expérimentation sur la valorisation des biomasses inexploitées. L'objectif est en particulier de développer le broyage, la récolte directe, la granulation ou le criblage de menues-pailles ou autres produits.

Dans ce contexte, la réunion visera à :

- S'informer / échanger sur les solutions les plus innovantes développées en France ou ailleurs en termes de valorisation des biomasses
- Préciser un calendrier de travail pour développer ce type de solutions en Normandie

### ■ Ordre du jour

- 09h45 : accueil
- 10h – 12h30 :
  - Introduction par les initiateurs du projet Terres d'Énergies
  - Panorama sur différentes solutions de valorisation des biomasses
    - Intervention de Jacques BERNARD (Aile) :
      - Valorisation de la biomasse ligneuse en combustion
      - Les différentes ressources ligneuses mobilisables et les atouts/freins/limites/opportunités des plantations boisées (du bocage aux TtCR) *Programme SRC+*
    - Intervention de Philippe Cabin sur d'autres pistes d'utilisation : Charbonisation, estérification, biochimie, biomatériaux, etc.
    - Questions/réponses, débat
- 12h30 – 14h : Repas (à la charge des participants, dans un restaurant à proximité)
- 14h – 16h30 : Comment développer ces solutions en Normandie ?
  - Réflexion collective :
    - Quelles sont les sources de biomasses mobilisables et actuellement inexploitées sur le territoire ?
    - Quelles sont les formes de valorisation les plus prometteuses à développer au regard des besoins des acteurs du territoire : valorisation en énergie (par combustion, méthanisation etc.) ? En paillage / litière ? En alimentation animale ?
    - Quelles sont les procédés et technologies les plus adaptés pour cela ? Quels modèles économiques ?
  - Validation d'un calendrier de travail pour 2017 : organisation de démonstrations, visites, expérimentations, formations, dépôt de dossiers de financement, etc.



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