

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

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Report on the first training event for small and medium users of woodchips in Achenal region / Germany

WP 5 – D 5.3

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The authors would like to thank the municipality of Rimsting for having the opportunity to combine the open house day of the heating plant and local district heating system of Rimsting with the first training event for small and medium users of wood chips.

Abbreviations

BAT	Biomass Trading Centre Achenal
No.	number
SRC	Short Rotation Coppice
WP	work package

1 Introduction

The first training event for small and medium users of woodchips in the Achenal region took place at Rimsting, Germany. The main aim of all WP5 training events is to transfer the knowledge on SRC to small and medium users of wood chips. Fortunately, it was possible to combine the training with the public inauguration of the new biomass heating plant and local district heating system of the municipality of Rimsting. Through this combination, it was possible to reach broad attention and at the same time give an impressive illustration of innovative technologies for wood chips combustion and heat supply.

The agenda of the training event comprised of the following topics:

- Introduction SRCplus project
- Overview on SRC plantations (seedlings, rotation period, harvest)
- Characteristics of forestry wood chips and wood chips from SRC
- Wood chip quality requirements for specific wood chip boilers (particular boiler producers, combustion technologies and scale)
- Business model for implementing SRC wood chips in the supply chain of the heating plant located in Rimsting
- Positive effect of biomass production and utilisation on the regional development and the environment

The lectures on the various items were rounded up through a discussion with attending experts and participants and a guided tour to the heating plant

Table 1: Training events for farmers in the Achenal region / Germany

Location	Date	Number of participants	Number of received questionnaires
Rimsting	09.10.2016	51	0

2 Training event at Rimsting

2.1 Basic information

Location/ Country: Germany	Partner.	No. of event: 1
No. of participants: 51	Place: Rimsting	Date: 09.10.2016
Target groups: small and medium users of woodchips		

2.2 Topics of the training event

The training event in Rimsting started with a short introduction of the mayor of Rimsting, Josef Mayer (see Figure 1), who gave a warm welcome to all the attending participants. He also stated that he was quite happy to have the opportunity on the one hand being host of this training event and on the other hand welcoming such an overwhelming number of participants.



Figure 1: Mayor Josef Mayer welcomed all the attending participants

As first lecturer Wolfgang Wimmer (BAT) gave a general insight into the SRCplus-project. He explained the background of SRCplus and gave a short overview of the project objectives and the activities, which already have been performed in the Bavaria and in the SRCplus partner regions. Wolfgang Wimmer also informed about the future actions in the project. In the second section of his lecture, Wolfgang Wimmer explained all available SRC species with special focus on those, which are commonly used in the region. Very concretely, he gave recommendations for suitable species in the region around Rimsting particularly in view to the predominant soil characteristics. For these species, Wolfgang Wimmer gave an outlook on the rotation periods and suitable planting plan. As seen in Figure 2 particularly the on-site information about the SRC in the direct regions has found vivid interest in the audience.

Dr. Stefan Hinterreiter started his presentation on a systematic approach on wood chip quality needed for different sizes of wood chip boilers. He then explained the quality characteristics in the installed combustion at the new heating plant at Rimsting. The new heating plant has a size of about 550 kW thermal power and therefore, special wood chip parameters have to be fulfilled. Dr. Stefan Hinterreiter went into detail and explained, that

- the moisture content of the wood chips shall be between 25 and 35%,
- the particle size shall fulfil the class P45 (see DIN EN ISO 17225; former ÖNORM 7133 particle size G50) and
- no course (thin and long) particles shall be within the wood chip fuel, because of causing problems with the stoker.

As final lecture Dr. Christian Epp explained some possible business models for the implementation of SRC wood chips in the supply chain of the heating plant located in Rimsting.

At the end of the presentation, the participants got an overview on the effects of biomass production and utilisation on local development and local environment, like e.g. positive effects on groundwater production and groundwater level.



Figure 2: View in the auditorium

Subsequent to the presentation, there was the possibility to get in contact with the attending experts. On this opportunity, also the SRCplus training materials (handbooks and flyers) have been handed out to interested participants (see Figure 3).



Figure 3: Wolfgang Wimmer handing out some leaflets



Figure 4: Josef Huber (BAT) explains interested attendants the heating plant, focussing on effects of different wood chip qualities

After the lectures the guided tour through the heating plant of Rimsting was the last topic on the agenda of the training event. Josef Huber (BAT) explained participants the functioning principle and all components of the new heating plant in Rimsting and on other producers of small-scale boilers. In this way, the guided tour became a very complementary practical training module in addition to the theoretic lessons, which were given beforehand. Through his daily work with stoves and heating stations fired by wood chips, Josef Huber was able to give very valuable practical recommendation for example, that if the wood chips are too wet, the combustion produces too less energy and too many emissions. Moreover, Josef Huber demonstrated the functioning principle of the stoker with different qualities of wood chips, including “normal” wood chips and wood chips from SRC (Figure 5).



Figure 5: Participants having a look on the stoker system, which is full of SRC wood chips

At the end of the training event, the entire SRC staff handed out questionnaires in order to get a feedback of the training concept. Mainly because of the “open character” of this training event, no completed questionnaire returned unfortunately.

2.4 Others (media reports: newspapers, web page)

The training event and the public inauguration day respectively have been announced among others via homepage of the municipality of Rimsting (see Figure 8)



Figure 8: Announcement of the public inauguration day combined with the training event of the municipality Rimsting

3 Results and Summary

The first BAT training event in Rimsting was very successful. The strong interest in the item of bio-energy already is proven by the number of participants: 51 signed the list of participants, but more attended, which can be seen in Figure 2. The very open character of the event made in practically impossible to get all attending participants to sign on the SRC lists. Moreover, all BAT staff reported many interested questions and communications after the lectures and during the guided tour. Obviously, the new wood- chip combustion in Rimsting helped strongly to create interest and fascination for energy supply from regional sources such as SRC.

The attending participants have been quite interested about the impact of different wood chip qualities within the combustion and the components of the heating plant. They also used the opportunity to participate of the huge knowledge/experience of the BAT employees, particularly Joseph Huber.

The lectures have been able to combine general theoretical knowledge on SRC quality management with very concrete references to the framework conditions in our region. This helped a lot to raise interest between existing and future operators of wood- chips stoves.