

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

Project No: IEE/13/574



***Report on training events for farmers
Resen, Macedonia***

WP3 / D3.5

September 2016



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The SRCplus project (Short Rotation Woody Crops (SRC) plantations for local supply chains and heat use) is supported by the European Commission in the Intelligent Energy for Europe Programme. The sole responsibility for the content of this report lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein. The SRCplus project duration is March 2014 to April 2017 (Contract number: IEE/13/574).

SRCplus website: www.srcplus.eu



Co-funded by the Intelligent Energy Europe
Programme of the European Union

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Abbreviations

SRC Short Rotation Coppice

1 Introduction

In the course of SRCplus project training program, two training events for the local farmers was organised in Resen, Republic of Macedonia. The main goal of the training courses was to transfer know-how on SRC plantations, to open discussions on SRC economic issues, to promote the best agricultural practices in Europe and to address sustainability issues in the selection process of suitable areas. The trainings successfully provided know-how to the farmers who are very specific group which plays important role in local supply chains of SRC.

The project team from SSA Resen, explained to the farmers that such a new activity can bring them many advantages in the future for sustainable production and use of solid biomass in the region of Prespa.

Table 1: Training events for farmers in Republic of Macedonia / Prespa region

Location	Date	Number of participants	Number of received questioners
School's building Resen / Macedonia	07.04.2016	27	27
Municipal building Resen / Macedonia	27.09.2016	23	23

2 Overview of training events

2.1 Summary

During year 2016, SSA Resen effectively organized two trainings for farmers in Resen, Macedonia. The duration of the trainings was one day, in fact, full 8 hours per training. The events were launched with a presentation on SRCplus project and brief summary of the main aspects of SRC. The following sessions were accomplished according the agenda that are presented below in this report and appropriate presentations for each issue given as annex.

The events were quite successful and a positive feedback was given by the attending participants. The project team gave maximum efforts to present the topics as much as better to the participants, using information and materials from the SRCplus project publications. The total number of attending participants on the two trainings was 50 farmers that indicate the increased awareness for SRC among farmers in the region. All attending participants were members of the regional farmer association and local agro cooperatives.

The representative from local farmer's association had one instructive presentation on local agro chemical laboratory, which is in the property of the association and which have important role with soil content analyses and soil quality in the Prespa region and widely.

In general, the trainings provided promotion for sustainability in SRC cultivation in order to inform interested farmers on how to set-up and manage SRC plantations in a best sustainable approach. Also the benefits of using woodchips, mostly for heating were successfully promoted.

All presentations used at the trainings are given as annex to this report.

2.2 Feedback from participants

At the end of the trainings sessions and final discussions, all attending participants filed a questionnaire forms in order to find out the feedback and evaluate the event. The feedback has been very positive. All participants get an overview of general and specific information about SRC, benefits from SRC, planting and cultivating, selecting SRC seedlings, land properties, soil qualities, sustainability as well as all the topics mentioned in the agenda.

The evaluation of the training gave a feedback that is very important, especially after the end of SRCplus project duration to ensure the positive influence in the future as well to fit SRC into regional strategies and development plans.

Planting and growing SRC as an agricultural practice become a new challenge for the farmers in Macedonia. The interest for SRC among farmers have increasing trend and the expertise and know-how inputs are more than necessary in the future.

General feedback, conclusions and recommendations for the future development on SRC in the region attained from the trainings was:

- Completion of national legislative for SRC as an agricultural crop for getting solid biomass
- Continuous increasing of expertise, exchange of knowledge and practices for SRC cultivation and woodchips production in the future
- Experimental plates to be developed in more regions in Macedonia for learning on SRC production
- Establishing contacts with more nurseries for SRC cuttings/seedlings providers from abroad for importing health and high quality of plant material
- To be strengthened the chains between involved stakeholders in SRC production and use of woodchips, producers, transporters, harvesters, users, producers of pellets etc.

3 Training event 1

The first training for farmers was held on 7th of April 2016 in Resen, Macedonia.

Event title: SRC for biomass production and heating

Location/ Country: Macedonia	Partner. SSA Resen	No. of event: 1
No. of participants: 27	Place: Resen, Municipal building	Date: 07.04.2016
Target groups: farmers, representatives from regional agricultural association and local agro cooperatives		

Topics of the training event:

First training for farmers			
TOPIC	TIME	GOALS	SOURCES
Overview on SRCplus project and SRC crops	30 min	Understanding the mission of the project and this training in particular and what materials are available for stakeholders. Understanding what SRC are, species, rotation cycles, soil, water requirements, production process in brief, yields.	SRC leaflet, SRC poster, SRC handbook, SRC web, materials from WP 3, presentations, D.2.5
SRC Species, varieties and clones available for SRC plantations	30 min	To present to the farmers the main characteristics of poplar, willow, eucalypt and black locust species, yields, growing periods, coppicing, productivity, as well as, soil and water needs	SRC handbook, SRC web, materials from WP3 presentations
SRC plantation and cultivation	45 min	To understand methods, planting material, machinery for establishing and cultivation of SRC plantation, effects on woodchips and soil quality, harvesting periods	SRC handbook, SRC web
Conditions for selection of suitable land for establishing SRC plantations	30min	To explain what kind of land can be use for establishing SRC plantation for achieving optimal benefits for the environment, farmers and communities	SRC handbook, SRC web, D.2.5, D. 2.1
Presentation on local laboratory for soil content analyses and soil quality (chemical elements and other parameters)	30min	To inform farmers for importance of soil analyses and to present the local laboratory with its capacity for providing this type of services	Materials from the laboratory
Planting and harvesting mechanization for SRC	30 min	To present the characteristics, types and capacities of planting and harvesting mechanization	SRC handbook
Economy of SRC and SRC best practices	30 min	Introduction to examples from the project related to municipalities: Sweden, Germany, Latvia, France	D.2.2, Materials form study tour SRC Handbook
Sustainability of SRC and financing programs in Macedonia	30 min	Awareness of available mechanisms, subsidies, programs for co-financing the investment Insight into recommendations and criteria for SRC	National legislation, mechanisms for support D.2.3; D.2.4
Final discussion, conclusions and evaluation	45 min	General discussions on SRC and Questionnaire	

Short summary: (goals, methods, description of the programme, feedbacks, further plans)

The goals of the training were quite successfully achieved. They are listed below:

- Understanding the mission of the project and this training in particular and what materials are available for stakeholders
- Understanding what SRC are (species, rotation cycles, soil, water requirements, production process in brief, yields
- To present to the farmers the main characteristics of poplar, willow, eucalypt and black locust species, yields, growing periods, coppicing, productivity, as well as, soil and water needs
- To understand the methods, machinery for establishing and cultivation of SRC plantation, effects on woodchips and soil quality, harvesting periods
- To explain what kind of land can be use for establishing SRC plantation for achieving optimal benefits for the environment, farmers and communities and to to inform farmers for the importance of soil analyses
- Introduction to examples from the project related to municipalities: Sweden, Germany, Latvia and France
- Awareness of available mechanisms, subsidies, programs for co-financing the investment

The training was lead by SRC project team members with providing power point presentations for each issue from the agenda. The representative from regional agro association provided presentation on issue for the soil analyses.

The invitation of the participants was with direct contacts with leaders of the farmers associations and cooperatives who further informed their members for the training events.

At the end of the training, a discussion was developed for practical issues with farmers. An evaluation of the event was applied after the discussion session with filling questionnaire forms by farmers. Total number of fulfilled questionnaires was 27. The feedback from the farmers on the training quality was important for preparing the second training event.

Event agenda (invitation and programme)





П О К А Н А

за учество на обука наменета за фармери од регионот на Преспа

**КРАТКО РОТИРАЧКИ ДРВЕНИ РАСТЕНИЈА
КАКО ЗЕМЈОДЕЛСКА КУЛТУРА И НИВНА УПОТРЕБА |**

Почитувани

Ве покануваме да учествувате на еднодневна обука на која ќе се презентираат следните теми поврзани со кратко ротирачки дрвени растенија KPP:

09.00 - 09.15 Доаѓање на учесниците

09.15 - 09.45 SRCplus проектот

09.45 - 10.15 KPP култури, видови, сорти, клонови

10.15 - 10.30 Пауза

10.30 - 11.15 KPP плантажи и одржување

11.15 - 11.30 Услови и избор на почва

11.30 - 12.00 Лабораторија за анализа на состав на почвата

12.00 - 12.30 Пауза

12.30 - 13.00 Механизација за садење, берба

13.00 - 13.30 Економија на KPP

13.30 - 14.30 Примери за најдобри практики во Европа

14.30 - 15.30 Ручек

15.30 - 16.00 Финансиска поддршка

16.00 – 16.15 Пауза

16.15 – 17.00 Дискусија и евалуација на обуката

Место: СОУ Цар Самоил Ресен
Дата: 07/04/2016 година

Figure1. The invitation letter combined with training agenda

Event photos



Figure3. Photos of the training event in school's building

4 Training event 2

The second training for farmers was held on 27th of September 2016 in Resen, Macedonia.

Event title: SRC for biomass production and heating

Location/ Country: Resen / Macedonia	Partner. SSA Resen	No. of event: 2
No. of participants: 23	Place: Municipal building, Resen	Date: 27.09.2016
Target groups: farmers from the region, members of regional farmer association and cooperatives		

Topics of the training event:

SECOND training for farmers			
TOPIC	TIME	GOALS	SOURCES
Overview on SRCplus project and SRC crops	30 min	Understanding the mission of the project and this training in particular and what materials are available for stakeholders. Understanding what SRC are (species, rotation cycles, soil, water requirements, production process in brief, yields.	SRC leaflet, SRC poster, SRC handbook, SRC web, materials from WP 3 (presentations), D.2.5
SRC Species, varieties and clones available for SRC plantations	30 min	To present to the farmers the main characteristics of poplar, willow, eucalypt and black locust species, yields, growing periods, coppicing, productivity, as well as, soil and water needs	SRC handbook, SRC web, materials from WP3 (presentations)
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Conditions for selection of suitable land for establishing SRC plantations	30min	To explain what kind of land can be use for establishing SRC plantation for achieving optimal benefits for the environment, farmers and communities	SRC handbook, SRC web, D.2.5, D. 2.1

Presentation on local laboratory for soil content analyses and soil quality (chemical elements and other parameters)	30min	To inform farmers for importance of soil analyses and to present the local laboratory with its capacity for providing this type of services	Materials from the laboratory
Planting and harvesting mechanization for SRC	30 min	To present the characteristics, types and capacities of planting and harvesting mechanization	SRC handbook
Economy of SRC and SRC best practices	30 min	Introduction to examples from the project related to municipalities: Sweden, Germany, Latvia, France	D.2.2, Materials form study tour SRC Handbook
Sustainability of SRC and financing programs in Macedonia	30 min	Awareness of available mechanisms, subsidies, programs for co-financing the investment Insight into recommendations and criteria for SRC	National legislation, mechanisms for support D.2.3; D.2.4
Final discussion, conclusions and evaluation	45 min	General discussions on SRC and Questionnaire	

Short summary: (goals, methods, description, further plans, feedback)

The goals of the second training were the same as of the first one and were quite successfully achieved. They are listed below:

- Understanding the mission of the project and this training in particular and what materials are available for stakeholders
- Understanding what SRC are (species, rotation cycles, soil, water requirements, production process in brief, yields
- To present to the farmers the main characteristics of poplar, willow, eucalypt and black locust species, yields, growing periods, coppicing, productivity, as well as, soil and water needs
- To understand the methods, machinery for establishing and cultivation of SRC plantation, effects on woodchips and soil quality, harvesting periods
- To explain what kind of land can be use for establishing SRC plantation for achieving optimal benefits for the environment, farmers and communities and to to inform farmers for the importance of soil analyses
- Introduction to examples from the project related to municipalities: Sweden, Germany, Latvia and France
- Awareness of available mechanisms, subsidies, programs for co-financing the investment

The invitation of the participants was with direct contacts with leaders of the farmers associations who informed their members for the training events.

The training was lead by SRC project team members with providing power point presentations for each issue from the agenda. The representative from regional agro association provided presentation on issue for the soil analyses.

At the end of the training, a discussion was developed for practical issues with farmers. An evaluation of the event was applied after the discussion session with filling questionnaire forms by farmers. Total number of fulfilled questionnaires was 23. The feedback from the farmers on the training quality was important for preparing the second training event.

Event agenda (invitation and programme)





ПОКАНА

за учество на обука наменета за фармери од регионот на Преспа

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КАКО ЗЕМЈОДЕЛСКА КУЛТУРА И НИВНА УПОТРЕБА**

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15.30 - 16.00 Финансиска поддршка

16.00 – 16.15 Пауза

16.15 – 17.00 Дискусија и евалуација на обуката

Место: Зграда на општина Ресен, Сала 2
Дата: 27/09/2016 година

Figure4. Invitation letter and agenda for the second training for farmers

Event photos





Figure6. Pictures from the second training for farmers

5 Material used in training activities

National

Table 2: National laws and programmes for agriculture

Type	Author(s)- Editor(s)	Year	Title	Topics
National laws for agricultural land	public gazette of Republic of Macedonia” No..135/07, 18/11, 42/11. 148/11	2016	National legislation	Conditions for selection of suitable land for establishing SRC plantations
National programmes for rural development	Agency for financial support of agriculture and rural development in Macedonia		National legislation	Subsidies for farmers in Macedonia
IPARD programme for financial support				Financing programs

European/International

Table 3:

Type	Author(s)- Editor(s)	Year	Title	Topics
Handbook	Ioannis Dimitriou & Dominik Rutz	2015	Sustainable Short Rotation Coppice	Sustainability of SRC; SRC best practices; mechanization for SRC

ANNEX

Presentations

- ANNEX I SRC presentation 1
- ANNEX II SRC presentation 2
- ANNEX III SRC presentation 3
- ANNEX IV SRC presentation 4
- ANNEX V SRC presentation 5
- ANNEX VI SRC presentation 6
- ANNEX VII SRC presentation 7

6 Conclusions

The benefits from SRC cultivation are positively seen from economical, environmental, social and health aspects. As a low-input agricultural practice and increased demand of solid wood biomass in the regional markets, also as a part of national strategy for energy efficiency, SRC production has big perspective to be successfully developed in Macedonia. There are appropriate conditions for SRC investments by domestic and foreign investors: Excellent climate conditions; lot of free land (marginal land, abandoned land, good agricultural land); the price of the land is low at the moment, no matter of the it's classification; not expensive labor force; good conditions for doing business for domestic and foreign investors (tax releases, cheap land concessions).

References

Ioannis Dimitriou & Dominik Rutz (year) 2015 Title Sustainable Short Rotation Coppice © 2015 by WIP Renewable Energies, Munich, Germany

Law for agricultural land (public gazette of Republic of Macedonia" No..135/07, 18/11, 42/11. 148/11 and 95/12;
Statistic Bureau of Republic of Macedonia www.stat.gov.mk

Agency for cadastre and immovable's of Republic of Macedonia www.katastar.gov.mk

Annual report for agriculture and rural development by Ministry for agriculture, forestry and water management

Strategy for sustainable development of the forests in Republic of Macedonia www.mzsv.gov.mk

General plan for forests management – article 24 of the Law for the forests

Law for the forests (public gazette of RM" No.64/09, 24/11, 53/11, 25/13, 79/13, 147/13 and 43/14)

Agency for energetic of Republic of Macedonia www.ea.gov.mk

Law for energetic in Republic of Macedonia (public gazette of Republic of Macedonia" No 16/2011 and 136/2011

Statute for renewable sources of energy (public gazette of Republic of Macedonia" No 16/2011)

Source: Strategy for energetic development in Republic of Macedonia to 2020 year (public gazette of Republic of Macedonia" No 143 from 29.10.2010 year)