A report on
Present status on reed canary grass cultivation in Sweden

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Report:
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Description:
This report will give a short description of the present status of reed canary grass cultivation in Sweden and possible trends for future based on previously published reports and available statistics. As a comparison, some figures of willow and hemp cultivation will be reported.

Reed canary grass was first introduced as an energy crop in Sweden where it reached a peak of app. 5000 ha (hectare) in the early nineties. The main part of the cultivations was in the northern parts of the country where it because of the hardiness of reed canary grass had an advantage over alternative energy crops. The market was however not developed and competition from cheaper forest fuels was too strong. Except for a few experimental plantations, most of the reed canary grass fields were turned up and used for other crops.

In 2005 only 115 ha reed canary grass were cultivated under single farm payment scheme, however additional areas may have been cultivated without this support.

The last years however has seen an increase in reed canary grass cultivation (Fig 1). Most of the areal increase has been in the northern county of Västerbotten and can be assigned to a couple of
projects\textsuperscript{1} in which producers has been guaranteed market disposal through contracts with a local energy producers. In this region there were app. 420 ha established 2008 (of which app. 360 ha were harvested in spring 2009) and there are plans for another 600 ha in coming years. The cultivation of hemp under single farm payment scheme has during the same time seen an opposite trend (Fig 1), while willow cultivation through these years has seen a slight decrease at considerably higher level, from 13 260 ha in 2007 to 12 251 ha in 2009.

![Fig 1. Reed canary grass and hemp cultivated area under single farm payment scheme. (Swedish Board of Agriculture)](image)

Studies have been made to show the potential of further increase of reed canary grass cultivation. In one report (1) the fallow areas in three Swedish regions were examined and the potential for establish energy crops on them were evaluated. Figure 2 presents the percentage results of the answers to the question what area now in fallow, they may use for energy crops. The possible area in Västerbotten is of comparable size as already used for reed canary grass.

![Fig 2. Areas presently in fallow in three swedish regions that farmers declare that they may instead use for energy crops.](image)

\textsuperscript{1} “Ökad produktion av biobränsleråvara – minskat oljeberoende” (Increased production of biofuel raw material - decreased oil dependence) 2006-2007 “Bioenergigårdar i ett nytt landskap” (Bioenergy farms in a new landscape) 2008-2011
In another report (2) different choices of action in order to increase farmers´ interests regarding energy crop cultivation were analysed. Some of their conclusions were

- Growing reed canary grass and willow is an alternative for farmers having another business aside. Characteristics for these farmers are less than 1500 working hours and partly owned machines
- The form of contract valued most by the farmers is harvest contract where an agent is offering a price and takes care of the selling to the product to the user.
- The form of organisation generally valued most by farmers is growing in a group of producers and where the producer association is negotiating with the buyer.
- There is large interest of increased knowledge regarding reed canary grass. Many also think that the probability that they will grow energy crops in the future increases with increased knowledge. On the other hand, offer of education on this subject is lowly valued, probably because they think the cost in terms of spent time will be too high.

The authors calculated that if 50% of the farmers that think they would grow reed canary grass were with increased knowledge is going to use 20% of their total area of arable land for this purpose this would correspond to 53 000 ha of reed canary grass. This is on condition that other requirements (e.g. profitability) were fulfilled. The percentage numbers are of course debatable, but still the calculation shows some of the potential for increased cultivation of reed canary grass.

References:

1. Träda – varför odlar man inte på sin mark. (Fallow – Why don’t they cultivate their fields?). (Carina Lindh, LRF Konsult. 2009)