

ADVANCED BIOGAS LEARNING IN EUROPE (ABLE)



David Collins, Head of REA Biogas

Billy Hamilton undertook a two week placement at an on-farm AD plant in Germany in April 2013.

Here he shares his experience.

INTRODUCTION

Having grown up on a farm and worked on farms for many years I understand the growing pressures on farmers to adapt to ever-changing guidelines and regulations while trying to maintain a reasonable income and standard of living. I see anaerobic digestion as a chance for farmers to take a lead in moving society toward a more sustainable future while improving on-farm waste management and generating an additional farm income.

I have also studied environmental science at university and spent ten years working in the environmental sector so I am very much aware of the need for sustainable energy production from renewable sources. Not only would this improve energy security by reducing the reliance on imported fuels but it is also important for reducing greenhouse gas emissions from fossil fuels.

As I am currently unemployed I decided to apply for this placement as it seemed a good opportunity to learn more about biogas production in Germany, as well as to experience German culture and language.

THE WORK PLACEMENT

The placement was for two weeks on a family run pig farm and biogas plant near Oberzenn, Bavaria. The farm is located in a little village called Esbach which is in North West Bavaria approximately 24km from Ansbach. Aside from the biogas plant they have 2,000 finishing pigs and they farm 250 ha. The biogas plant itself



has a 500kW production capacity and is run on a mixture of pig slurry (35-40%), maize silage (45-50%) and rye-grass silage (10-20%).

I very quickly became involved in the day-to-day running of the farm. April is a very busy time for farmers with crop planting, spraying, digestate and slurry spreading and silo preparation being just some of the additional work being carried out over and above the normal operations of feeding the digesters, maintenance etc.



LEONARDO

Specific tasks that I was involved in included:

- Repair of the pumps that supplied heat from the CHP to the digesters
- Repair of feeders for the pig barn
- Painting the silo with bitumen in preparation for the rye-grass harvest
- Servicing one of the CHP engines
- Replacing the activated carbon in the H₂S gas filter

My daily routine included testing the three digesters using FOS/TAC equipment and dry matter analysis of maize silage and samples taken from the digesters. This helped us to understand the processes taking place in the digesters and at the same time provided the biogas operator with valuable information on any changes taking place in the system on a day-to-day basis.



CULTURAL ASPECTS

The Sturm family made us feel very welcome during our two week stay. We were accommodated in the family home and we had all our meals with the family. Although Thorsten and Georg Sturm spoke English well and were glad of the opportunity to practice with us, the other family members and Christian, the farm labourer, only spoke German and the local dialect. This was a great opportunity for me to practice speaking and understanding German.

I greatly enjoy German cuisine and baking. Christa, Georg's wife, is an excellent cook and in fact runs her own small bakery on the farm. We were treated daily to apfel strudel, schneeball and many varieties of wurst. We were also lucky enough to be there during a 350 year anniversary party of a local brewery.



This party took place in an Oktoberfest-style tent with traditional music and food. I dressed in traditional Bavarian "Lederhosen" and found that the

local people really appreciated the effort and made us feel very welcome.

CONCLUSIONS

I am very glad to have had the opportunity to participate in the REA's biogas placement programme in Germany. I benefited greatly from the experience in a number of ways. Firstly, I gained valuable experience in the day-to-day operation of a biogas plant – something that I intend to put to good use back home. Secondly, I enjoyed very much the cultural aspect of the placement and learned quite a bit about Bavarian culture, cuisine and language. And finally I made good friends and will remain in contact with Thorsten Sturm and the Sturm family.

Find out more:

www.biogas.org.uk/leonardo



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