



Treading softly with sheep's wool



Turf is removed and a trench dug to your preferred width for the path

BUERDALEN VALLEY

ODDA

NORWAY

Using sheep's wool as a building material in paths: A demonstration of three different techniques

When tackling soft or boggy areas, geotextile is often used to stop gravel from sinking into the wet soil. The geotextile often surfaces after a while and will, over time, disintegrate - leaving a foreign material in the ground or blowing with the wind around the landscape. Sheep's wool is a natural material which will perform the same function as the geotextile.

Particles of aggregate and small pieces of gravel stick in the wool as the water seeps through it and the path will float on top of the marsh or bog. At the same time, wool – particularly from the old Norse sheep or “villsau” is largely a problem product for the farmers, who often burn or bury it. Many farmers avoid shearing their villsau, which can become a problem for the sheep as the wool becomes heavy. It's not popular for knitting as it's coarse and has a high fat content. This makes it particularly useful for path building and so we can take a problem and turn it into an opportunity. We were also interested

in the fact that this is an old technique – remnants of sheep wool have in fact been found in old Roman roads.

Through ASCENT we received our partners from Northern Ireland to a study visit to Odda in September 2018. Apart from doing work on the Trolltunga path, we took the opportunity to use their experiences with wool and for practical purposes we did the trial in Buerdalen valley.

Once the ground was prepared, we placed a good amount of wool on the ground. In the section with the French drain, clean rocks were placed across the path and towards the well. A final

layer of wool was added to the top. Finally, we mixed aggregate and gravel and added a good layer on top of the wool.

The surface will now feel springy. Compress as much as possible! In the end, the turf we removed was moved back to line the path to the width we wanted. Use plants from the location to define your path, both to make it look nice but also to make it clear where you don't want people to walk. The path will feel soft for a while, while the wool settles. After a month or two you should go back and if necessary add more gravel and aggregate mix.

Outcome

Ideally, we should have used a really wet, marshy area but for practical purposes we used an area easy to get to, and where we had gravel available. Glacial aggregate was found naturally on the site and all we needed to use was the wool, the aggregate and natural gravel. We started by carefully removing the turf, which was kept for later. A trench to the width of the path was dug.

The path felt springy to start with, but

will become solid like a normal path in time. Experiences from elsewhere show the path in perfect condition ten years later. Weather and soil conditions will obviously play a part and we look forward to going back to Buerdalen in spring to see what it looks like. I believe the Heathland centre at Lygra – Lyngheisenteret – who came with us on the day are keen to test this technique and it will be really interesting to see their results!



A good layer of wool is placed in the trench

FURTHER INFORMATION

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Key Findings & Learning Points

Ideally, a different site should have been chosen as the technique is suitable for marshy ground. For logistical reasons, we demonstrated the technique on harder ground. The trial was carried out as an afterthought.

As Hordaland county council is also involved in a project looking to find more uses for sheep's wool with another partner in the region, we decided to take the opportunity to trial the technique as we had visitors with the knowledge.

The trial generated a lot of interest and we have been contacted by parties across Norway who want to learn more about the technique. In particular, a good partnership with the Heathland centre in northern Hordaland was forged.