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Market for wool sleepwear and bedding
Summary
The aim of this report is to give an overview of woolen sleepwear and bedding products that are available on the market. The analysis is made in three countries: Norway, Sweden and the UK. The work has been conducted by National Institute for Consumer Research (SIFO) and Nordic Initiative Clean & Ethical (NICE) for Australian Wool Innovation Ltd (AWI).

The survey is based on market analysis of Internet searches. We used Google and searched for wool in various combinations with names for night-wear/clothing and bed linens. The searches were specified with language and location of the web store. The most relevant findings were recorded. We observed great differences between the three countries in types of products that were available, their customer groups, as well as market channels. The scope of the search was limited to next-to-skin products including nightwear and bedding, thus excluding products where the wool is used as filling material in mattresses, duvets or pillows.

In Norway, the wool nightwear market for babies and toddlers is large and varied. Some nightwear, mainly nightgowns, is also available for women, but not for men. The Swedish market for wool sleepwear emerges as more "alternative" than the Norwegian. There was more emphasis on ideology, while the Norwegian market appears more mixed and more common. Similar to Norway, babies, children and women are the target markets for wool sleepwear. Sleepwear in the UK differs radically as nightwear seems to be a more important type of dress, and includes several types of garments such as bathrobes and leisurewear. We found wool mainly within the luxury segment for men. The garments were classic pajamas made of wool mixed with cotton or silk. This type of dress is very unusual in Norway and Sweden, where the sleepwear chosen by men is far less formal.

The markets for next-to-skin bedding product in wool are more marginal and mainly found only in Norway and Sweden. While the market for sleepwear in wool is very similar to the market for cotton sleepwear (only more limited), what characterizes the market for bed linen in wool is a strict differentiation from the normal cotton-dominated market in Norway and Sweden. This applies to type of products, esthetics and sales channels, as well as product care. The products appear “natural” in white or brown, thick, and wooly. They are mainly sold as a type of health products within the alternative health market. In the UK, there were many different dealers selling "wool bed" but wool is used as filling material, not as next-to-skin products, so these were outside the scope of our study.

Keywords
Wool, sleep, nightwear, bedding, merino, sheets, nightgown, pajamas, bed, market, Norway, Sweden, UK
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2015

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1 Introduction

The aim of this report is to give an overview of woolen sleepwear and bedding products that are available on the market. The analysis is made in three countries; Norway, Sweden and UK. These countries were selected because they have different traditions and uptake in use of wool products. As far as we know, the use of wool in Norway and Sweden has not been compared before, but some research is available on comparison between the UK and Norway (Hebrok & Klepp, 2013; Hebrok & Klepp, 2014).

The scope is limited to next-to-skin products such as sleepwear (pajamas, nightgowns etc.) and wool bedding (sheets, bed linen, duvet covers etc.), but excluding products where wool is not intended to be in contact with the body such as when it is used as filling material in mattresses, duvets or other products.

The work has been conducted by National Institute for Consumer Research (SIFO) and Nordic Initiative Clean & Ethical (NICE) for Australian Wool Innovation Ltd (AWI).

We already know from our previous research on wool products that the availability of wool bed linen and sleepwear is limited and nearly non-existent (Hebrok et al., 2012). Even though we are interested in wool and have worked with several projects on wool the past years, we had not seen any products available in bed linen, and with the exception of children’s nightwear and within the last year night-gowns for women (a fairly new product), we were not expecting to find much on offer.

Norway is a country where next-to-skin wool is used a lot, but then mainly in underwear. This is not sold as sleep-wear, though many may use it as such, especially in relation to outdoor-activities like camping and hiking. Hence our point of departure for this survey was identifying sleep-wear meant as such, and wool bedding. As Sweden and the UK are countries where wool underwear is used to a lesser degree, we were not expecting to find products in wool for bed-use, except maybe wool blankets.
2 Method

We started our survey by asking for products in wool in some of the biggest outlets for bed-linen in Oslo. None of them had fabrics in wool that were meant to be next-to-skin, but they sold mattresses, pillows, mattress toppers, etc. with wool filling. Thus we decided to base the market analysis on Internet searches.

We used Google and searched for wool in various combinations with names of nightwear/clothing and bed linens. The searches were specified with language and location of the web store, and we set the limit to Swedish pages in Sweden, Norwegian pages in Norway and English pages in the UK. Many of the same sites came up irrelevant to what search words were chosen.

The most relevant findings were recorded. The following information about the various product pages was recorded:

- Type of product
- Fiber material
- Construction (knitted, woven or non-woven)
- Color and decorations
- Aesthetics (appearance/style)
- Labelling
- Laundering and care instructions
- Price (examples if many products)
- Users (babies, children, women or men)
- Target consumer group(s)
- Selling arguments and claims
- Supplier; company name and company type
- What is their main commodity/trade area
- Selling channel(s)
- Location
- Web page address
- Other relevant information

A number of registrations were made in all three countries. The websites names and addresses are given in the Appendix, while the number of registrations is summarized in the table below. The searches were conducted during 9th – 24th of April 2015. The
main results and comparisons between the products and the markets are given in this report. An important finding was that the market appears very different in the three countries.

<table>
<thead>
<tr>
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<th>UK</th>
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<td>Sum</td>
<td></td>
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</table>
3  Sleepwear

3.1  Norway

For babies and toddlers, the market is large and varied. Several companies have products in wool for this age-group, but they emphasize slightly different things; soft, delicate and pleasant, comfortable, fresh and playful, or childish and fun. For the smallest, the clothes are designed as one-piece outfits. For larger children it is more usual with two-piece sets and nightgowns. Sleepwear for toddlers is characterized by a gradual transition between specialized nightwear and clothes that are meant for both day and night, activity and rest. We have registered some typical examples that recur on various sites and in various sales channels. Prices range from 40 to 80 USD (300 to 600 NOK) for a set or one-piece.

For women there is also a wide range, but the products are more alike. Nightgowns dominate, but one firm also offers nightgowns with a long pair of pajama-trousers. The material is either 100% merino wool or a silk and wool blend. The dresses are plain, mainly either in pastel colors or black. There is little decoration or patterns, however some had narrow stripes. Some discreet lace in the same color as the garment is evident, as decoration. The gowns have a very simple cut.

There are not as many companies selling sleepwear for adults as there are for children. Sales channels vary from online stores targeting the "mother and child", companies where wool is their central selling-point, to some that sell a bit of everything - such as a book club. Prices of children’s nightwear vary from 28 to 80 USD (210 to 600 NOK), while women’s nightwear cost 73 to 113 USD (550 to 850 NOK). Similar nightwear in cotton or viscose cost usually around 13 to 66 USD (100 to 500 NOK).

All night-apparel, regardless of whether it is for baby, children or women, is knitted. The most common selling points are: soft, fine, itch-free, cozy. All garments can be washed in the machine (where laundering is mentioned), although temperatures vary slightly, the treatment does not differ. None mention hand-wash or other special cleaning methods. There are products that advertise themselves as environmentally friendly, but there is little use of eco-labeling schemes, except for a few products that have the Global Organic Textile Standard (GOTS) label. We did not find any information on country of production, wool origin, etc., however it is possible that this is available if one looks more carefully.
A couple of examples of sales arguments used for sleepwear in Norway:

This has become the favorite nightgown for most of those who try it. The front-opening makes it suitable for breastfeeding. It can be combined with pajama-pants in the same quality. Wool regulates temperature and wicks moisture away from the skin. Sleepwear in wool/silk is therefore ideal year round. Provides good, snug warmth for people who have a tendency to freeze at night, and cools and keeps skin dry for those who tend to become warm and clammy during the night. (Nøstebarn)

WoolLand wool nightgown for women in unique designs made from the best merino wool quality. WoolLand wool is silky soft, hypoallergenic and non-itchy. (WoolLand AS)


3.2 Sweden

When we searched the Swedish web-pages, several Swedish versions of the Norwegian internet-companies popped up. This means that some of the same products are available in Sweden as well. However, we have avoided registering the same companies twice. In addition, we found three genuine Swedish companies. They were smaller online shops that sell their own brand as well as some other brands. Two are specialized in organic and non-toxic products, while the third mainly sells wool. They had a rather wide range of clothing for the whole family. The Swedish market for wool sleepwear emerges as more "alternative" than the Norwegian. There was more emphasis on ideology, while the Norwegian sites appear more mixed and more common. Similar to Norway, babies, children and women are the target markets for wool sleepwear.

One of the two Swedish companies had old-fashioned washing instructions with hand-washing and flat-drying, etc. The others were more updated.
Sleepwear

Example of care instructions:

- **Hand wash in cold water (30 degrees) with wool/silk detergent.**
- **Stir garment in water and squeeze gently. Do not rub or twist the garment when you wash, wool felts with friction and water, also when one shocks wool by switching from cold to hot water.**
- **Rinse until water runs clear. Note: The rinse water should have the same temperature as the wash water.**
- **You can roll the garment in a towel if you want it to dry faster, stretch and hang the garments by the hem or dry flat, dry away from direct sunlight.**

Screenshot from https://lotuseco.se/shop/engel-ullpyjamas-barn

3.3 UK

Sleepwear in the UK differs radically from Norway and Sweden. Firstly, it is apparent that nightwear is a much more important type of dress in the UK, and that it includes several types of garments such as bathrobes and leisurewear. While wool properties, environmental and ideological issues were central for Norway and Sweden, it was in the luxury segment for menswear we found wool sleepwear in the UK. The garments were classic pajamas in mixed wool/cotton without mixing ratio being specified. This type of dress is very unusual in Norway and Sweden, where the sleepwear chosen by men is often far less formal.
There were several wool bathrobes both for men and women, but given that this is not sleep-wear per se, we have not concentrated on this type of apparel. Unlike Norway and Sweden, we found wool sleepwear only for men in the UK, and not for women. Slightly more similar to the Scandinavian web-shops, we found a company that sold toddlers’ clothing in wool, where a type night sleeping bags in wool were part of the offerings. They used the absence of chemicals and a good night’s sleep as their sales argument:

*Why choose organic bedding for your baby? Some of the most toxic chemicals in existence are used on conventional cotton crops as pesticides and insecticides. It's picked, processed and dyed using more chemicals, the residues of which remain in the fabric. Babies spend up to 20 hours a day sleeping (although we know it doesn't feel like it!), so we think providing a synthetic-chemical free organic baby bedding is definitely a good thing. Our organic sheets are a safe, healthy choice; no nasty residues or flame retardant chemicals. Because wool has been proven to aid sleep, have lots of organic baby sleeping bags and organic baby blankets pure merino wool. (Lana Bambini [http://lanabambini.co.uk/store/organic-baby-bedding.html](http://lanabambini.co.uk/store/organic-baby-bedding.html))*
4 Next-to-skin bedding

4.1 Norway

While the market for sleepwear in wool is very similar to the market for cotton sleepwear (only more limited), the market for bed linen in wool is very different compared to the normal cotton-dominated market. This applies to type of products, esthetics and sales channels, as well as product care.

The Norwegian bed is very standardized, with a "bed set" consisting of sheets, pillowcases and duvet-covers, all mainly in cotton and all removable and washable. Wool products that are sold are something in-between this and what they cover: pillows, duvets, and top mattresses. To begin with, it was unclear to us what was intended to be used next-to-skin and what was not. But on the basis of how the products were presented, it became clear that the textiles were meant to be used as next-to-skin, and that airing combined with freezing the products are normal cleaning methods, rather than washing. Thus there is little difference between the mattress and the sheets, the blankets, duvets, duvet covers, etc. as they are categories with gliding definitions.

More precisely, we can talk about under- and over-blankets. The appearance of the fabrics is very uniform. They are thick, shaggy, wool-white and with a nondescript construction. They closely resemble a wool-fleece or sheepskin, sold as a whole textile.

The sales channels are, if possible, even more surprising. Two firms dominate. One sells travels by bus with demonstrations during the journey. These trips have “the south” (Spain), Sweden and local Norwegian towns as their destinations. There is some advertising for these trips online, but also warnings, complaints, and newspaper articles could be found. This company does not sell products online, just on the trips, and prices and reviews of products are only available indirectly. The second company targets a type of health products within the alternative health market. Not only wool, but also minerals, magnets, etc. are available. The products are geared towards those with chronic diseases and those looking for treatments.

The wool bedding sets cost between 320 and 1.060 USD (2.400 – 8.000 NOK). There were some variations on what the complete set consisted of, but it was common that it included a pillow, duvet, and a top mattress.
Example of marketing of the "almost free bus ride", where demonstration of products and the sale of these are toned down.

4.2 Sweden

The selling of next-to-skin bed linen in wool in Sweden is similar to the market in Norway; very marginal. But there are some exceptions to the rule we need to note. Interestingly, they are different than what we expected. Several of the companies had more “normal” sales channels, such as an online store, sometimes combined with travel, home parties, etc. The products were very similar to those we found on the Norwegian market and appear “natural” in white or brown, and wooly. The websites appeared more professional. Common for many of the web-pages was that the company was established by individuals who had a conviction that sleeping in wool is healthy. Alongside these more personal internet firms, we find larger firms that have a wider range of health products. Products are either aimed at the elderly and infirm, or in one case towards mother and child. Along with the bed linen, a variety of other products such as bathrobes, slippers, and cover for chairs were sold, and products for various parts of the body such as the knees, kidneys, etc. And as in Norway, they also sold magnets and other items for alternative treatment. The price level of bedding sets was similar to the products sold in Norway.

On one of the internet pages, we found one item that was part wool duvet cover, part blanket, part semi-thick duvet. Its multi-functional aspects are perhaps its most interesting features.
The Swedish sites differ radically from the Norwegian internet-sites in relation to maintenance. We found this same difference also when it came to sleepwear. Swedish internet sites recommend very outdated procedures for cleaning. Sheets should not be washed, but aired and preferably left out in the snow or moist air, possibly sprayed with lanolin. If they are laundered, this should be by hand. The slightly unusual recommendations for cleaning are also repeated in blogs on washing wool-bedding.

The aesthetics are, as in Norway, woolly, white and possibly shades of brown. Some blankets have shades in brown or light brown on a white background or vice versa. One exception is a company that sells wool-white products but with a navy blue stripe as a trim along the edges.

Screenshots from [http://www.mavalprodukter.se/sängkläder.html](http://www.mavalprodukter.se/sängkläder.html).

The Swedish wool-bed market was very fringe, so even though these pages seemed “alternative”, they are not very well known. Examples of sales arguments in Sweden:

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When you select Ullbädden’s bedding you get!

* Bedding in pure natural materials
* Comfortable body temperature during sleep, all year round.
* Softer muscles and joints (thanks to the uniform temperature of the wool)
* Less moisture, dust and mites (very good for people suffering from allergies).
* Eco-friendly:
  * No sheets and no washing required, just air and enjoy.
  * (The bed is cared for and cleaned by airing in wet weather thanks to the wool’s natural lanoline.)
  * Obviously it is washable, but the need does not arise often unless there is an accident.
4.3 UK

There were many different dealers selling “wool bed” in the UK. They sell mattresses, duvets, mattress covers, and of course blankets. The blankets were not used as in Northern Europe, which is as something used in addition to the duvet, but instead replaces duvets combined with loose sheets. As previously mentioned, it is difficult to know what is intended to sleep directly on and what is supposed to have another fabric layer in between. However, we still think that the products we found were not intended to be next-to-skin, reason being the way in which the companies had sewn and designed the products. The firms also sold their own bedding sets to be used with wool products, but they were only made of cotton.
5 Conclusion

In all the three countries, it is unusual to find next-to-skin sleep-wear in wool. The exception can be seen in Norway, where this is somewhat more common for babies and small children. The sleep-wear market appears to be changing, as we could find some new products for women’s sleepwear in wool. It will be interesting to see if the selection has increased further within a year or two.

When it comes to bed-linen, the situation is different as what is marketed is very different from the norm. The link to alternative health products is strong, and there is little reason to believe that this will become main-stream segment. There are no bedding products within the high-end market, selling on comfort or aesthetics. The difference between these products and what is otherwise on the market is so different, that this represents a different world altogether and cannot compete with the high-end market as such. Therefore we think that targeting very different market segments will be a good idea; such as the high-end segment and the Lifestyles of Health and Sustainability (LOHAS) market segment.

We observed great differences between the three countries in types of products that were available, their customer groups, as well as market channels. In Norway, the wool nightwear market for babies and toddlers is large and varied. Some nightwear, mainly nightgowns, are also available for women, but not for men. The Swedish market for wool sleepwear emerges as more "alternative" than the Norwegian. There was more emphasis on ideology, while the Norwegian sites appear more mixed and more common. Similar to Norway, babies, children and women are the target markets for wool sleepwear. Sleepwear in the UK differs radically as nightwear seems to be a more important type of dress, and includes several types of garments such as bathrobes and leisurewear. We found wool mainly within the luxury segment for men. The garments were classic pajamas made of wool mixed with cotton or silk. This type of dress is very unusual in Norway and Sweden, where the sleepwear chosen by men is far less formal.

A difference between the three countries also emerges in the products' care descriptions. In Norway, the instuctions are simple and in line with up-dated knowledge on wool-laundering and general care. This entails easy care through machine-wash (with a good spin cycle so that items do not need to be dried flat) or airing. Contrary to this type of care, and seemingly old-fashioned seen from a Norwegian perspective, the Swedish instructions are moe in line with how wool was treated several decades ago.
in Norway. In the UK there are no care-instructions given on-line. We assume that chemical dry-cleaning, in line with this being a common care practice for wool in the UK, will be the most prevalent practice. But from the material gathered, we do not have enough information to conclude.

The markets for next-to-skin bedding product in wool are more marginal and mainly found only in Norway and Sweden. While the market for sleepwear in wool is very similar to the market for cotton sleepwear (only more limited), what characterizes the market for bed linen in wool is a strict differentiation from the normal cotton-dominated market in Norway and Sweden. This applies to type of products, esthetics and sales channels, as well as product care. The products appear “natural” in white or brown, thick, and wooly. They are mainly sold as a type of health products within the alternative health market. In the UK, many different dealers sell “wool bed” but wool is used as filling material, not as a next-to-skin product, so these were outside the scope of our study.

However, the sample is rather small so it is difficult to draw conclusions on whether some of the aspects of the markets or the products could be transferred to other countries, or whether the cultural and environmental differences between the compared countries are too large.
6 References


Appendix – List of website registrations

**Sleepwear**

Norway:

1. Jollyroom (sells Ugly Childrens Clothing pyjamas) [http://www.jollyroom.no/ull/ullklaer?category=Barnek%c3%a6r%2fnatt%c3%b8y](http://www.jollyroom.no/ull/ullklaer?category=Barnek%26a6r%2fNatt%26b8y)
4. Babybanden AS (sells Janus clothing) [http://www.babybanden.no/products/pyjamaslekedrakt1117](http://www.babybanden.no/products/pyjamaslekedrakt1117)
7. Hust & Claire (originally Danish chain tore) [http://www.hustandclaire.no/vare/17420-kids-uldheldrakt-i-ull-oeko-tex-100%C2%AE](http://www.hustandclaire.no/vare/17420-kids-uldheldrakt-i-ull-oeko-tex-100%C2%AE)

Sweden:

3. Lotus eco [https://lotuseco.se/shop/engel-ullpyjamas-barn](https://lotuseco.se/shop/engel-ullpyjamas-barn)
UK


Bedding

Norway

1. Ullkilden [http://ullkilden.no/sengesett-sengetoy/](http://ullkilden.no/sengesett-sengetoy/)
2. Thermotours [http://www.thermotours.no/catalog/sengesett/komplette-sett-0](http://www.thermotours.no/catalog/sengesett/komplette-sett-0)
5. Vivitex helseprodukter [http://vivitex.mamutweb.com/Shop/Product/Madrass-90x200-cm/200-2](http://vivitex.mamutweb.com/Shop/Product/Madrass-90x200-cm/200-2)

Sweden

5. Moneta natur [http://www.monetanatur.se/huvudprodukter/3](http://www.monetanatur.se/huvudprodukter/3)
SIFO is a non-bias governmental institute that conducts consumer research and testing. The board of directors is appointed by the Ministry of Children and Equality Affairs which also provides the basic funding. SIFO currently has a staff of 40. The scientific staff is comprised of researchers and other highly qualified personnel from social and natural sciences. SIFO's projects are organized into three categories: Consumption and economy, Market and politics and Technology and environment.