

# Washing Your Fleece at Home

By Gillian Leigh & Wanda Cummings

*The instructions below are intended for those who wish to clean moderate amounts of fibre at home.*

**A Note on Lanolin:** Sheep and mohair fleece contain lanolin, which is a natural grease, chiefly comprised of a mixture of cholesterol esters (suint). Lanolin's function is to keep the fleece clean – as it flows from the roots and along the fleece, it carries with it much dust and dirt. For sheep and angora goats, it also acts as a moisturizer, keeping the skin dander-free and the fleece in good shape. Llama, alpaca, and some other exotic fibres do not contain lanolin and, while easier to clean than sheep wool and mohair, should not be underestimated in their cleaning requirements.

It's very important to wash fleece as soon as possible after shearing because the lanolin or wax in the fleece hardens with age, thereby making it more difficult to remove thoroughly. Not washing also increases the likelihood of colour changes in the fleece, stain spread, and fermentation of organic matter. A raw fleece is much more attractive to moths than a clean one, as well. Even if you don't plan to process your fibre for some time, it's important to wash it promptly and store it in a cool, dry, moth-free environment (such as a cedar chest or double- or triple-bagged in a closet) until you're ready to do so.

Because lanolin is a grease, it dissolves best in very hot water and generous quantities of detergent. If temperatures are lowered during the washing process, it can make the lanolin resolidify into a much stickier substance which is yet more difficult to clean. Hence, scalding hot water is imperative throughout the entire washing process.

## *What You Will Need*

- 1. Net sweater bags or lingerie bags**, which are made of strong nylon net. These are optional, but will allow you more control over your fleece if washing in a large tub. Limit the amount of fibre to your washing equipment – maintain a good water-to-fibre ratio. A maximum of five pounds (loose) should be washed in a washing machine at a time (depending on the size of your washer); a maximum of two pounds in three regular-sized sweater bags (each 12 x 20 inches, 30 x 40 centimetres) should be washed in a tub at a time. Bags should be filled loosely with fleece to allow water circulation.
- 2. Very hot water** Removing the grease from fleece requires a temperature of at least 140F, and preferably 150F to 180F. You should not be able to put your bare hands into the water; if your water supply isn't hot enough, add boiling water (being sure not to bring the water, however, to boiling temperature – 212F or 100C).
- 3. Detergent** The choice of cleaning agent is important because some cleaning agents can facilitate felting. Also, hard water requires more soap; if you plan to do a lot of washing, you may want to look into a water softener after having your water tested. Alkaline pH assists in the opening up of wool scales and creates felting in the fibre. Because soap is by definition alkaline, it should not be used. Several detergents, however, are suitable for scouring. They include Dawn, Joy, Ivory Liquid, etc. Avoid any that contain extraneous perfumes, colours, preservatives, antibacterial ingredients, polymers, metasilicates, phosphorous, petrochemical solvents,

bleaches, or synthetic detergents. Also, do not use either the liquid or powdered laundry detergents such as Tide, ABC, etc., as they are inadequate for cleaning fleece and can damage the fibre. Be cautious, also, with products containing conditioners (and do not add conditioner to your rinse). Conditioners leave a residue on fibre which, over time or when exposed to heat, become sticky and cause nepping and noiling fibre damage, and will impede the carding process. If conditioners are added to the rinse water prior to processing, your fibre will need to be rewashed.

- 4. A washing machine** or large tub with a cover to retain heat.
- 5. Sweater racks** with netting or a large sheet for drying.

## *Washing in a Large Tub*

Note: If your fleece contains a lot of mud, it would be a good idea to let it soak in cold water for a couple of hours or even overnight and drain in the morning. In the "olden days," fleeces were put in running streams to take off much of the dirt and debris and came out amazingly cleaner. Use the following steps:

1. Run very hot water into your large tub. Hot water pouring over and around fleece can create enough agitation to felt it. When your tub is full, add at least 1/4 cup of detergent (as described in Detergent) per pound of fibre. If the detergent is concentrated, you can use approximately one third less, but generous quantities are better. The amount you use will depend on the fibre, how dirty it is, and how hard your water is. Use your judgement. You have enough detergent when the water is slippery. Swish the detergent through the water to mix it without creating bubbles or foaming it. Gently push the laundry bags, filled loosely with fleece, into the water. Cover the tub to retain the heat. Let the fleece soak, without touching it, for approximately 15 to 20 minutes, enough time so that the water doesn't cool noticeably.
2. Gently remove the bags of fleece from the water, allowing them to drain, and lay them in another smaller container. Drain and rinse the large tub, then pour more clean hot water into it.

## *Notes for Best Results*

1. Do not run water over fibre. Gently push fibre into water to prevent felting.
2. Do not let the water temperature cool or change suddenly.
3. Do not subject the fibre to boiling temperatures (212F or 100C).
4. Do not agitate the fibre.
5. Do not lift saturated fibre above the water without support.
6. Handle wet fibre as little as possible.
7. Use generous quantities of detergent.

Repeat the above process with detergent. After the second detergent bath, do a rinse without detergent, a third bath with detergent, and another rinse, following the same procedure above. It's imperative that you have clean water when you're through. If your water is harsh and alkaline, a bit of vinegar may be added to the last rinse to keep your fleece soft. Some recommend the "tea cup test" to test the cleanliness of your fibre -- place a lock of fibre and hot water into a white tea cup, microwave until it lightly steams, and swish it around. If the water is clean, so is your fibre. It's imperative that you have clean water when you're through.

3. When the water is clean on the last rinse, hang the bags over the tub on a pole or broom handle to drain. You might take the time to spin the fleece, a few handfuls at a time, in a salad spinner, but this is admittedly time-consuming. If you have access to a washing machine, gently place the loose fleece into the washing machine and put it on the spin only cycle.
4. To dry, take the loose fleece and lay it on a sweater rack with netting or a similar arrangement so that air can circulate and dry the fleece more rapidly. A sheet tied at the four corners of a poster bed with the fleece loosely laid over it works well, too. Approximately every three hours, turn it and fluff out any clumps. The drying time can be anywhere from six hours to several days, depending on how densely you have the wool laid out, the temperature, humidity and weather conditions. Do not dry your fibre in bright, direct hot sunlight or by a fireplace as it will make the fibre brittle (it's okay to hang it out on a sunny day, just not in direct hot sunlight – use common sense). Be sure your fibre is completely dry before shipping.

### *Washing in a Washing Machine*

Note: If your fleece contains a lot of mud, it would be a good idea to let it soak in cold water for a couple of hours or even overnight and drain in the morning. In the "olden days," fleeces were put in running streams to take off much of the dirt and debris and came out amazingly cleaner. Use the following steps:

1. Run very hot water (150-180 degrees Fahrenheit) into a top-loading (only!) machine. Hot water pouring over and around fleece can create enough agitation to felt it. When your tub is full, turn the access panel off so that agitation does not occur. No agitation is permitted at any time. Add at least 1/4 cup of detergent (as described in Detergent) per pound of fibre. If the detergent is concentrated, you can use approximately one third less, but generous quantities are better. The amount you use will depend on the fibre, how dirty it is, and how hard your water is. Use your judgement. You have enough detergent when the water is slippery. Swish the detergent through the water to mix it without creating bubbles or foaming it. Gently push the loose fleece into the water. Put the lid down to retain the heat. Let the fleece soak, without touching, for approximately 15 to 20 minutes, enough time so that the water doesn't cool noticeably.
2. Set the cycle to spin-only and spin the water out of the washing machine. Gently remove the fibre from the machine and cover with towels to keep it warm. Fill the machine again with hot water for a rinse, and place the fleece back into the washing machine. Let it rinse for 15 to 20 minutes. If the fibre is still greasy or sticky, add detergent and wash and rinse again. (At least two washes and rinses are standard). Be sure always to remove fibre prior to filling the machine. Repeat the wash and rinse process until the water is thoroughly clean. Some

recommend the "tea cup test" to test the cleanliness of your fibre -- place a lock of fibre and hot water into a white tea cup, microwave until it lightly steams, and swish it around. If the water is clean, so is your fibre. It's imperative that you have clean water when you're through.

3. When the fleece and final rinse water are thoroughly clean, let the fleece go through a final spin cycle. This will take it to a barely damp condition without abrasion or agitation.
4. To dry, take the loose fleece and lay it on a sweater rack with netting or a similar arrangement so that air can circulate and dry the fleece more rapidly. A sheet tied at the four corners of a poster bed with the fleece loosely laid over it works well, too. Approximately every three hours, turn it and fluff out any clumps. The drying time can be anywhere from six hours to several days, depending on how densely you have the wool laid out, the temperature, humidity and weather conditions. Do not dry your fibre in bright, direct hot sunlight or by a fireplace as it will make the fibre brittle (it's okay to hang it out on a sunny day, just not in direct hot sunlight – use common sense). Be sure your fibre is completely dry before shipping.

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