

Silk Tidings

Greetings from Salt Spring Island

We wish all of you peace, tenacity, hope and productivity for 2009. The end of 2008 felt tumultuous and went out with a bang on many levels. 2009 is the Year of the Earth Ox in the Chinese lunar calendar. The ox is a calm, steady, hard working and trustworthy creature that is not prone to get rich quick schemes. For this year it is predicted the way to prosper in all aspects of our lives

Clay/Straw House Update

Work continues on our house. Terry finished the wiring and it passed inspection. What a huge job, so many wires to keep track of!

We are making an earthen floor for the kitchen, dining room and living room. It is composed of clay, sand and water applied in three layers. The first and thickest layer is down and curing. The final layer will be finished with 5-8 coats of linseed oil. The floor



Left: Terry wiring

is through slow and sustained effort.

The silver lining of these challenging and hopeful times is a slowing down and re-evaluation of what makes life worthwhile and re-connecting with our values. As fibre artists we are at home with these things and can share them with our friends, family and community by passing along our valuable knowledge of all fibre arts and our creative

will become very tough and an ideal material to stand and walk on for the health of your feet and ankles and all the way up to your shoulders and neck. We spend a lot of time in the kitchen and look forward to standing on our earthen floor.

Next we will be installing the wool insulation in the ceiling. Wool has a higher R value per inch than fibreglass or other types of insulation and it is eco-friendly – it is biodegradable and a by-product of



Below: Son Mike with wool insulation

spirit. We have a lot to offer and can produce the feeling of quiet joy and accomplishment acquired through the hard work of our minds and hands.

We have some new products, specials and information to feed the souls of those around you as well as your own during this upcoming year.

the sheep and clothing industry – and feels like a soft, warm blanket. Most sheep meat farmers burn or bury their wool as they cannot find a market for it. We got our wool insulation from New Zealand (where they have more sheep than people) with the help of our friends, the Ashfords, who helped arrange shipping. We should be warm and cozy in the house while we finish the inside plaster, floor, masonry stove and all the rest.

Treenway Silks is located at 501 Musgrave Road, Salt Spring Island, BC, Canada, V8K 1V5. You can reach us toll free at **1.888.383.SILK (7455)** or at 250.653.2345 or by fax at 250.653.2347. Email us at **silk@treenwaysilks.com**. See our website **www.treenwaysilks.com**.

Welcome to the International Year of Natural Fibres!

Nature not only provides food for our bodies but fibre for our clothes and homes: wool, cotton, silk, jute, sisal, alpaca and hemp to mention a few. As agricultural products, natural fibres provide a living for millions of people all over the planet. The uses of synthetic fibres, most of which are petroleum based, have become wide-spread since the 1960s. However, natural fibres of all kinds have been providing us with clothing and shelter since the beginning of humanity.

Realizing the importance, intelligence and necessity of small scale farming and processing throughout the world, the UN is focusing on these issues for 2009 International Year of Natural Fibres:



- provide greener more efficient agricultural techniques. This means helping farmers use more organic methods, getting out from under the cycle of using pesticides and herbicides,
- improve the lives of the poor by finding new markets and uses for natural fibres and their by-products,
- stimulate awareness and demand for natural fibres because they are sustainable, biodegradable, renewable and provide a living for people in rural settings,
- research for better processing to replace more harmful products. One example is the processing of building boards from sisal to replace the toxic asbestos which was a popular building material for heat resistance and insulation. Sisal looks like the top part of a pineapple and is of the agave family. It is indigenous to Mexico and grows in many arid areas of the world.

Benefits of Natural Fibres

Healthful – skin is the largest organ in our body. Natural fibres have the capacity to breathe naturally by the exchange of temperature working with our human warming and cooling system. Most natural fibres absorb and release perspiration. Artificial fibres trap moisture on the inside surface of fabric and our skin causing a clammy feeling and may cause unpleasant body odor. Many natural fibres are naturally antibacterial.

Comfortable – because most natural fibres are hygroscopic (absorb moisture from the body and release it through the fibre) it enhances our comfort, feeling good next to the skin. Due to this process, many natural fibres are warm in the winter and cool in the summer. Most of the natural fibres are anti-static.

Renewable – natural fibres are derived from plants, animals and insects.

Hi-tech – new research is providing amazing ways to improve the production of natural fibres and incorporate them into our homes, machines and on our bodies.

This promotion of natural fibres is happening at just the right time in our history. We are all trying our best to be conscious, responsible global and community citizens by making smaller ecological imprints by shopping locally for our food in support of our farmers, embracing fair trade and trying to make wiser choices. For those of us that have been fibre fanatics and promoters of the virtues of natural fibres for many years, I believe we can play an important role in the observance of this special year. We can provide awareness of natural fibres and the virtues that go with their production and use by encouraging conversation about the fact that 2009 is the International Year of Natural Fibres. Don't let this great opportunity pass you by. Encourage your family, friends and community to look at labels and think about where their clothing and housewares come from, just as they would think about where their food comes from.

Visit www.naturalfibres2009.org

Silk – a Natural Fibre

Good for the environment; supportive of family farming; healthy and comfortable to wear

When evaluating eco-friendly fibres, it is important to look at how they are processed in addition to how they are grown. Many of the newer natural fibres are renewable resources, which is great news, but most require a lot of resources and chemicals to get the fibre out of its original form and into something that can be spun and woven or knit. The growing and production of silk has retained its relative simplicity over the millennia.

Cultivated – *Bombyx mori* is the most widely cultivated and used silk. Some interesting facts about its culture include:

No Chemicals Used in Rearing Silkworms

Silk is very basic and simple in its rearing and processing. Cultivated silkworms eat the leaves of the mulberry tree which is raised without harmful pesticides. The highly sensitive silkworms will not develop properly or will die when exposed to those toxic chemicals.

Positive Employment for Countryside Population

The silkworm must be tended around the clock during its 30 day lifecycle. The fresh mulberry leaves must be picked and fed to the caterpillars every four hours. The quality of the silk is only as good as the quality of its

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International Year of Natural Fibres

food (mulberry leaves) and the tender care it receives from its farmer. China raises 2-3 crops of silkworms per year. Sericulture (raising of silkworms) is employment for women and a great financial supplement to the other crops raised by a farming family.

Healthy for the Environment

It takes the leaves of numerous mulberry trees to produce enough silk to make a shirt. Mulberry trees and bushes are fast growing, long lived, easy to propagate, can grow on land that is unsuitable for traditional crops and their cultivation spans a great climatic range. They intercrop well with many other plants.

By-Product Provides Food for Animals, Fish & Humans

The silkworm's lifecycle is approximately 30 days as caterpillar, 3 days to spin a cocoon, 14 days inside the cocoon as pupa (changing from caterpillar to moth), and 5-7 days as moth until it dies a natural death. The moths mate, lay eggs (200-500 per coupling) and the cycle starts all over again. The moth part of the lifecycle is very short. The moth's body contains reproductive organs only. They live only long enough to mate, lay eggs and then they die a slow, struggling death because they have no digestive system or way to take food into their body.

The silk industry stifles the pupa inside the cocoon with dry heat very quickly. This provides unbroken strands of silk from the cocoon to produce high quality silk used for garments, as well as medical sutures, bicycle racing tires, nose cones for the Concorde and more. The pupa is rich in

protein and a great source of food for fish, ducks, chickens and other animals and, in some cultures, also for humans. It is pressed for oil and used in food and cosmetics.

Clean Processing

Warm water is used in the reeling of silk from the cocoon. Water and soda ash (the main ingredient in washing soda) is used in removing the sericin from the silk yarn to make it soft. There are no other chemicals involved in processing Treenway silks.

Healthy and Comfortable to Wear

Silk is the least allergenic of all the natural fibres. It is also hygroscopic which means it wicks moisture from our bodies and releases it through the fine silk fibres, therefore keeping you warm in the winter and cool in the summer. This quality and the fact silk fibres are fine and hollow make it a perfect first layer for winter wear. Silk is comprised of 75% protein with amino acids similar to those in our skin. Thus, silk feels smooth and soft next to the skin.

Silk – A Wise and Eco-friendly Choice

Silk is not just the story of an industry. It is one of resourceful people tending a garden, nurturing their "live-stock" and producing beautiful value added commodities from their hard work. By looking at the facts, you can be assured using silk or silk blends to make your own clothing or buying silk clothing is an ethical and wise choice.



Clockwise from top left: Cotton boll, Texas; Cultivation of industrial hemp for fibre and grain, France; Sisal plant, Mexico; Llamas (*Lama glama*) in the sunset near San Pedro de Atacama at an altitude of approximately 2,400m (7,900 ft), Chile Norte Grande. (Luca Galuzzi); Sheep; Linen handkerchief; *Bombyx mori* silkworm (Michael Cook); Llama overlooking Machu Picchu, Peru (Schuyler Shepherd); Flax plant (Franz Eugen Köhler, *Köhler's Medizinal-Pflanzen*, 1887). Source Wikipedia.org

Specials

20/2 on cones

Our most popular yarn is 20/2 spun silk. We have it in 100g skeins and approx. 200g cones. Our last shipment of 20/2 cones has a lovely sheen but we can see some loose bits, similar to mini pills on the yarn. It appears the yarn was not gassed. This is a process of running the finished yarn very fast over a hot flame to singe off any fibre left on the yarn after the spinning process.

The 20/2 yarn has 5,000 yd/lb (10,060 m/kg) and is perfect for scarves, shawls and all clothing. The yarn is beautiful and will perform well; one just needs to be mindful of the fluff. We are offering a **25% discount** on this yarn.

Regular Price: \$48.90 Cdn / 200g cone

Sale Price: \$36.68 / 200g cone (approx. \$30.56 US / 7oz)



Silk / Yak Fibre

100 g packages

Yak is a valued beast of burden living above the snow line in the Himalayan Mountains. It provides meat, milk, hair and hides to the people living there. Its long shaggy coat reaches the ground. The soft undercoat is combed out at the time of the spring molt. The fibre length varies from 1-1 1/2 inches. Separating the guard hairs from the down is a slow, necessary process before obtaining the spinning fibre, which is nearly as soft as cashmere. The longer hair is used in rope making, mats, sacks and covering huts. The undercoat of the yak keeps it warm in extreme cold. The fibre is lustrous, warm and lightweight.



Yak at third lake in Gokyo. www.wikipedia.org

Silk lends substance, sheen and elasticity to the delicate yak down yielding a super soft and warm fibre with a lovely soft brown/grey colour. This exotic blend is heavenly to work with in spinning, weaving, needle felting and other fibre arts.



As part of our move to change our packaging to smaller sizes, we are offering the 100g package at a **25% discount**.

Offer is good while 100g packages last only.

Regular Price: \$32.00 Cdn / 100g

Sale Price: \$24.00 / 100g (approx \$20.00 US / 3.5oz)

NOTE

1. Prices do not include shipping.
2. Specials end April 30th, 2009.
3. Regular 10% Discount: Our normal Bulk Discount for orders of silk yarns and fibres over \$150.00 Cdn does not apply to Specials items.

Remember

All prices are in Canadian funds.
US Exchange Rate: 1.2 (January 2009)

Web Specials

In addition to our newsletter specials, we have specials on our web site. We notify everyone on our email list each time we post new specials. You can also check our web site periodically. See the Specials button in the drop-down menu or go to www.treenwaysilks.com/sale.html.

If you would like to be added to this list, please send us your full name and email address to info@treenwaysilks.com. Please add us to your address book to ensure you receive our emails.

Silkster's Gallery

Call for Entries

Our next Silkster's Gallery will be in our April/May issue. We encourage all of you to send photos of your work using Treenway silks. It is fun and inspirational for all of us to see what unique work is being produced by others. We reward you for your time with silk product from Treenway.

See our web site for details of what we require from you to participate in this exciting gallery. We so look forward to sharing your entries.
www.treenwaysilks.com/gallery.html

New Products

Creative Silk Pack

Fibre artists of all kinds will enjoy experimenting with these silk fibres full of character and attitude. We have six colourways to complement your work and mood.

Wild Berries

A lush mixture of reds and purples of all those delicious summer berries.

Summer Sunrise

Yellows and orange ring in the warmth and excitement of a new day.

Eat Your Greens

A mix of the extraordinary diversity of nature's greens.



Coastal Ocean

Cool turquoises transport us to a place of quiet and creativity.

Winter Night Sky

Deep blues stir the desire to tuck into a cozy nook with a hot drink and good book.

Freshly Plowed Fields

The countryside in early spring when the different tones of earth's browns give rise to a sense of new beginnings.

Each brilliant 20g pack contains:
degummed throwsters silk • hankies • cocoons • silk rods
\$16.50 / pack

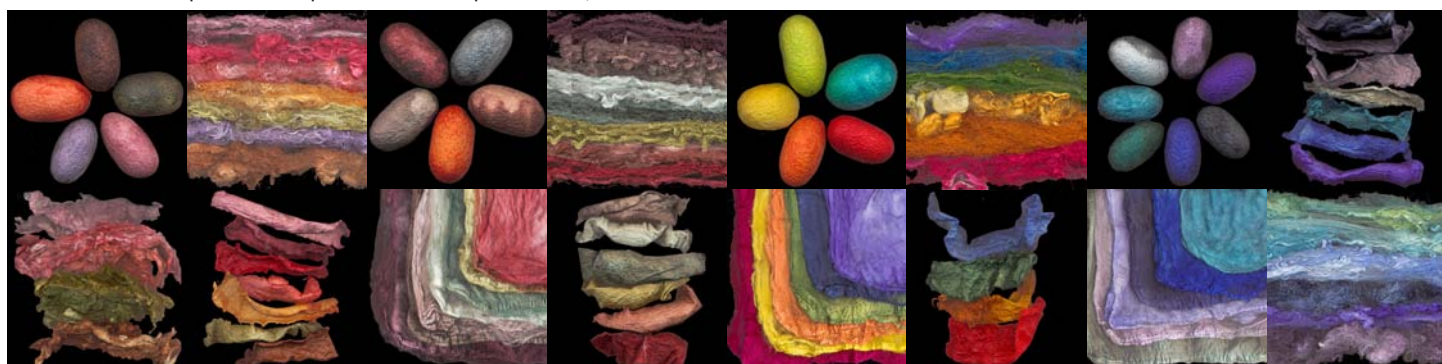
Funky Fibre Collection

The Funky Fibre Collection complements and extends the Creative Silk Pack. Each pack includes hankies, cocoons, throwsters silk, cocoon strippings, and silk rods dyed in four radiant colour mixes:

Apple Festival | Fall Fair | Sea Capers | Saturday Market

Cocoons	10 pieces	\$4.75
Throwsters Silk	7g	\$4.50
Cocoon Strippings	7g	\$4.50
Silk Rods	7g	\$5.50
Hankies	10g	\$11.95

www.treenwaysilks.com/dyed_fibres.html



Apple Festival

Fall Fair

Saturday Market

Sea Capers

Funky Fibre Projects

At Treenway, we stitch, needle felt, fuse, spin and trap these great funky fibres.

Throwsters silk's curly character adds texture; Hankies can be peeled into a thin veil and



more layers create 3 dimensional vessels and bags; Cocoons can be painted, pierced and cut and are a perfect form for jewellery, flowers, tassels, bird's eggs, shells, etc.; Rods can be split and pulled

for flowers and other shapes.

www.treenwaysilks.com/projects.html

New Zealand Specialty Fleeces

We are thrilled to have more fleeces this year including Gotlands. But we hope there will be even more fleeces to be had next year. Liz from Newfoundland once said, "My only goal in life now is to outlive my fleeces." How many of us can relate?

It is always lots of fun sorting all the fleeces when they come in, groans of, "Oh, look at this colour. Oh wow, just feel this one" and on it goes. They are all very beautiful and fabulous to the touch. Dive in and have fun.

Badgerface

These sheep are a definite type: chubby with thick bulky fleeces and cute black markings on their heads. The wool is a rich cream colour, sometimes with a little patch of dark grey that comes from the neck. The special nature of the fibre is the bulkiness with loose curls, lustre, lovely hand and bounce.

Corriedale

The lovely fine fibres and long staples have made this breed a favourite spinning fleece for many years. Flick card only and wash carefully after spinning in hot soapy water.

English Leicester

The heavy curly lustrous wool is even in length and fibre diameter. You could show these lovely staples off using them as surface texture in felting or weaving.

Gotland

We are lucky to be able to offer these lovely fleeces this year. The colour choice is varied and as scrumptious as always. The fibres are soft and silky for spinning, have a lovely sheen when used in woven fabrics and easily felted.

Merino

There are some very unusual colours this year with two or more colours running in the staple including some white spots. We have an extra special merino this year (marked with a *) – take a look! We also have some white merino for your dyeing pleasure. These superfine fleeces are easier to manage if you separate out the staples and wash them one by one carefully in hot soapy water to soften the lanolin before spinning. Spin them very fine with a high twist. For people wanting to spin some super-fine threads for the first time, we can recommend the book "Merino" by Margaret Stove. This takes you through the step-by-step stages of sorting, washing and the techniques of spinning the fine Merino fibres.

Perendale

The result of interbreeding Cheviot and Romney, its lustre and bulky quality make these fleeces very special. Allow for this when you spin or weave. Spin a little finer as the fibre will bulk up afterwards. The wool has exceptional spring which gives good shape retention to knitted garments and a high insulation factor to blankets. It may only be necessary to use a flick carder to flick out the tips of the staples before spinning.

Polwarth

This breed was developed in Australia from the crossing of Merino and Lincoln. The objective was to combine the fine wool of the Merino with the longer staple of the Lincoln. The coloured Polwarth comes in a lovely variety of colours and are very sought after by spinners everywhere.

Romney

This fleece is very popular because of the unique way it combines several traits. The fleece is lustrous, hangs in separate locks, with minimal cross fibres between the locks. Uniformity of crimp from the butt to the tip of a lock is typical. Romney wool has the finest fibre diameter of all the long wool breeds, with a spinning count from 40-48 which is 38-31 microns. It spins easily with a low grease content that makes it a very light shrinking fleece. These qualities enable Romney to be used for many products, ranging from sweaters to outerwear to carpets.

You are limited to one Gotland but there is no limit on the total number of fleeces you order. First come, first serve.

\$25.50 / kg (\$11.60 / lb) for all fleeces except:

\$28.50 / kg (\$12.95 / lb) for 100% Merino fleeces

Notes

Prices in Canadian funds.

Weights in kilograms. 1kg = 2.2lb

Fleece numbers with an A or B at the end are half of a fleece.

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New Zealand Specialty Fleeces

Fleece Number	Breed	Weight (kg)	General Colour	Colour & Description
219	Corriedale	1.1	Dark	Dark to warm chocolate, defined crimp
221	Corriedale	1.6	Med	Steel greys, long and soft
220	Corriedale	1.8	Dark	Very dark, very soft, lovely crimp
222	Corriedale	1.8	Med	Steel grey, soft and good length
214	Corriedale	2.9	Dark	Steely grey, soft
226	Corriedale	2.9	Dark	Dark dark chocolate to black
217	Corriedale	3.1	Dark	Very very dark, very fine
215	Corriedale	3.3	Dark	Dark grey to brown soft & lofty
171	English Leicester	2.3	Dark	Dark chocolate brown defined curls
168	English Leicester	2.5	Light	Light to medium greys, spots of dark, long
170	English Leicester	2.6	Dark	Dark charcoal and black lovely curls
169	English Leicester	3.1	Dark	Dark charcoal and chocolate lovely curls
172	English Leicester	3.1	Multi	Multi colours, grey, charcoal, browns stronger crimp
174	English Leicester	3.1	Light	Beige and greys long staple, lovely lustre
173	English Leicester	3.2	Multi	Multi chocolate and light grey and black, long and soft
194	Gotland	1.7	Multi	Beige, light silver to dark charcoal, long
183	Gotland	1.8	Multi	Cream, silver and beige along staple
186	Gotland	2.2	Multi	Steel grey, light grey and beige
178	Gotland	2.5	Multi	Medium and light greys, nice curls
233B	Merino	1.5	Med	**Extra special** Steely greys, creams and silver
232A	Merino	1.7	Light	Pale silvers with beige patches long defined crimp
56A	Merino	1.7	White	Clear bright white, good length, very fine
228	Merino	1.8	Light	Creams, pale caramel, fine and defined, Moorit
236	Merino	1.9	Dark	Dark chocolate and charcoal, very fine and soft
57B	Merino	2.0	White	Clear bright white, good length, very fine
232B	Merino	2.2	Light	Pale silvers with beige patches long defined crimp
56B	Merino	2.2	White	Clear bright white, good length, very fine
231B	Merino	2.3	Light	Pale silvers with cream spots, so soft and defined
230	Merino	2.5	Med	Medium moorit, soft
58	Merino	2.6	White	Clear bright white, very fine, slightly shorter staple
59	Merino	3.2	White	Clear bright white, good length, very fine
234	Merino	3.3	Dark	Silvery charcoal grey, long
165A	Perendale	1.6	White	Excellent example of Perendale, cream and lofty
165B	Perendale	1.8	White	Excellent example of Perendale, cream and lofty
159A	Perendale	1.9	White	Excellent example of Perendale, cream and lofty
161	Perendale	2.1	White	Excellent example of Perendale, cream and lofty
157	Perendale	2.3	White	Excellent example of Perendale, cream and lofty
166	Perendale	2.4	White	Excellent example of Perendale, cream and lofty
154	Perendale	2.6	White	Excellent example of Perendale, cream and lofty
163	Perendale	2.8	White	Excellent example of Perendale, cream and lofty
158	Perendale	3.0	White	Excellent example of Perendale, cream and lofty
162	Perendale	3.1	White	Excellent example of Perendale, cream and lofty

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New Zealand Specialty Fleeces

Fleece Number	Breed	Weight (kg)	General Colour	Colour & Description
9A	Polwarth	1.4	White	Beautiful, fine, bright white, defined crimp, excellent fleece
243B	Polwarth	1.4	Light	Milky silver, lofty and long
10A	Polwarth	1.5	White	Beautiful, fine, bright white, defined crimp, excellent fleece
49B	Polwarth	1.5	Dark	Great length staple, soft, beautiful, well defined crimp chocolate brown
52A	Polwarth	1.7	Med	Warm browns, stronger crimp, handles well
12B	Polwarth	1.8	White	Beautiful, fine, bright white, defined crimp, excellent fleece
31B	Polwarth	2.0	Dark	Stronger crimp, very dark with caramel tips
8C	Polwarth	2.1	White	Beautiful, fine, bright white, defined crimp, excellent fleece
243A	Polwarth	2.1	Light	Milky silver, lofty and long
241A	Polwarth	2.3	Med	** Smokey grey spots of cream
8B	Polwarth	2.3	White	Beautiful, fine, bright white, defined crimp, excellent fleece
28	Polwarth	2.4	Dark	Chocolate brown, very soft
12A	Polwarth	2.4	White	Beautiful, fine, bright white, defined crimp, excellent fleece
240	Polwarth	2.8	Light	Pale beige grey soft good crimp
241B	Polwarth	2.9	Med	**Smokey grey spots of cream
26	Polwarth	3.2	Dark	Beautiful, extra fine, grey brown
9B	Polwarth	2.2	White	Beautiful, fine, bright white, defined crimp, excellent fleece
202B	Romney	1.4	Med	Medium brown, spots of pale grey
202A	Romney	2.4	Med	Medium brown, spots of pale grey
200	Romney	2.5	Dark	Dark beautiful long fleece
210	Romney	2.6	Multi	Latte, cream and silvers
201	Romney	2.8	Med	Medium grey, soft, brown ends, long
209	Romney	2.9	Multi	Cream, grey and medium brown, beautiful fleece
211	Romney	3.1	Multi	Lovely crimp, cream, silver, steel grey
BF1	Badgerface	2.3		Lustrous light creamy beige with pencil grey spots
BF2	Badgerface	1.6		Beautiful fleece, light creamy with pale grey
BF3	Badgerface	2.6		Lovely long staple, cream , mushroom and grey spots
BF4	Badgerface	1.8		Lustrous light creamy beige with pencil grey spots
BF5	Badgerface	2.1		Beautiful steely grey and cream with charcoal spots
BF6	Badgerface	2.8		Pale grey, caramel with steely grey spots
BF7	Badgerface	2.0		Well defined crimp, lovely cream with steely grey spots
BF8	Badgerface	2.6		Pale grey and beige hues with definite spots of steel grey
BF9	Badgerface	3.2		Mushroom and pale grey with chocolate spots
BF10	Badgerface	2.4		Chocolate with pale grey and steel grey spots
BF11	Badgerface	2.5		Delicious oatmeal shades and grey spots
BF12	Badgerface	2.4		Lovely creamy latte with pencil grey spots
BF13	Badgerface	2.0		Pale mushroom, cream and pencil grey

India

Wild & Semi-domestic Silks: Tussah, Muga & Eri

In December 2007 we returned from another fact finding and friendship making trip to India. Our trip focused on continuing research of wild silks, which we began in 1988. Each trip provides a more complete and clear picture of what goes on in this sparsely published "industry".

We have always been graciously assisted by the government agency, the Central Silk Board. The CSB consists of a team of scientists and humanitarians who are dedicated to promoting silk and improving the lives of the caretakers and producers of silk. They are directly involved with the silkworm rearers and accompany us to the villages.

Raising these "wild silks" has always been an important part of the rural tribal people's social, economic and spiritual heritage. The CSB has been sensitive about their involvement with the people over the years in regards to their assistance in rearing and marketing wild silks.

In the 20 years I have been traveling in India, the economic situation of these rural rearers has improved markedly due to the dedication and help from the CSB. They have been able to determine disease in silkworm eggs, pass on scientific understanding of the food plants, soil and water, and provide training in the use of improved reeling and spinning equipment and promotion of wild silk products. All of this has created improved levels of production and quality providing greater opportunities for gainful employment.

As I look through the internet, I see a lot of fractured information that does not coincide with what I have seen in the field and heard from the Central Silk Board. Much of this information pertains to what is called Ahimsa, or peace, or vegan silk.

All silkworm lifecycles are similar: egg hatches to caterpillar – caterpillar eats nearly non-stop for approximately 30 days – it spins a cocoon – pupa changes from caterpillar to moth inside the cocoon – moth emerges

after about 14 days – male and female moths find each other, mate, lay eggs and die within a week of emerging from their cocoon. The cycle starts over again with their layings.

So in this special International Year of Natural Fibres, I will start this Asian Journal with an abbreviated story of three species of wild silkworms and their caretakers.

Eri Silk – *Philosamia ricini*

The majority of eri silk is raised in the northeastern states of India. It is also known as "poor man's silk" because it is not of the same quality as the other three silks – tussah, muga and Bombyx (or mulberry) – and therefore not as costly. This is because the eri caterpillar does not spin one continuous strand of silk when making its cocoon like all the other caterpillars. It spins awhile and then stops, continuing this way until it is finished. This process results in a cocoon that has numerous starts and stops and one open end which means it cannot be reeled. The majority of eri silk is reared by village women and is spun on a drop spindle called a takli.

Eri culture is an essential role for women in rural daily life. It is like keeping chickens or ducks. The women carry out the associated tasks during their spare time, first to supply their own needs and then for extra income. A large part of a family's needs are met by extracting the pupa for eating. The villagers consider it a delicacy for themselves as well as feed for their ducks, chickens and other domestic animals.



Above: *Eri silkworms in Assam, India*
Below: *Spinning eri silk on a takli drop spindle in Assam, India*



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Above: Tussah caterpillar, Orissa, India
Below: Protecting the tussah caterpillars



Above: Muga cocoons, reeled yarn and woven fabric
Below: Muga rearers in Assam, India



Tropical Tussah Silk – *Antheraea mylita*

The majority of tropical tussah silk is raised in the middle and north eastern states of India. The tussah silkworms eat the leaves of trees which contain tannin, which give the silk a permanent honey or light grey colour. They carry out most of their lifecycle outdoors in the food trees planted in “gardens” or in the forest, refusing to be totally domesticated. They are vulnerable to wind and rain, to attack by ants, wasps, birds, rats, lizards, snakes, and disease.

Tussah culture has always been, and continues to be, an essential part of the lives of many tribal (indigenous) people. It is an uncertain business like all agriculture because it is dependent on the quality of the soil, amount of rainfall or sunshine and other weather conditions. Each day the men are in their “gardens” or forests tending to their watch with bows and arrows, sling shots and mud balls. The women do most of the reeling of the cocoons, relishing the pupa as food for their families or animals.

Muga Silk – *Antheraea assemensis*

The golden colour of the muga silk is the pride of Assam in northeast India and coveted by the Assamese people. The caterpillar is more vulnerable than its tussah cousin. Its home is the extraordinary ecosystem of the Brahmaputra River valley where the temperature and humidity conditions are just right.

Muga culture is very complex and continues to be an important part of the lives of the tribal people in this area. There are numerous crops grown in upper Assam and lower Assam. Cocoons raised to provide seed for the commercial crops are grown in hotter lower Assam and transported to cooler upper Assam where the best cocoons are raised to be made into yarn and cloth. The silkworm is semi-domestic, lives outside and must be cared for in a similar way to the tussah. The women do most of the reeling of the cocoons, utilising the pupa as food for their families or animals.

Ahimsa / Peace / Vegan Silk

In the past several years a new term has emerged in context with silk: ahimsa. Ahimsa is a Sanskrit term meaning to do no harm (literally: the avoidance of violence - himsa) (www.wikipedia.org).

Ahimsa silk, also referred to as peace or vegan silk, is being touted as a cruelty free silk and refers to silk which has been produced without harm to the pupa before they emerge from their cocoons.

In addition to the moths that emerge from the cocoon for mating purposes in each of the varieties of silk, there are some villages raising silk where all the moths emerge from the cocoon. However, this practice seems impractical to be sustainable on a large scale.

Silkworm Lifecycle

All silkworm lifecycles are similar:

- egg hatches to caterpillar
- caterpillar eats nearly non-stop for approximately 30 days
- it spins a cocoon
- pupa changes from caterpillar to moth inside the cocoon
- moth emerges after about 14 days
- male and female moths find each other and mate
- females lay eggs and die within a week of emerging from their cocoon.

The cycle starts over again with their layings.

Cruelty is a strong word. However, when one truly understands the whole picture of silk, including the life of the insect and the people who raise them, it is apparent that it includes livelihood, hard work, care and lifestyle of rural people.

Sericulture plays an important role in the lives of millions of rural people. Following are some facts on four types of silk to help you be better informed when making your silk choices.

Bombyx Silk

Each mother moth lays 200-500 eggs. If all the moths were allowed to hatch and mate, there would not be enough food or care for all the baby silkworms and they would ultimately starve.

On a humanitarian scale, disease can be a big problem in sericulture. To prevent disease, which destroys a whole silkworm colony in one day, the farmer or governmental agency like the CSB checks the mother moths after they lay their eggs. At this time, her life is nearly over as she cannot eat. An incision is made in her abdomen, which is inspected under a microscope to look for

disease. If there is disease, the eggs are destroyed to prevent the loss of the next colony.

On an economic scale, the by-product of the pupa is extremely valuable for the rural people for feed for other animals and themselves. (The moth will live less than a week and, if found to contain disease, they cannot be used as any kind of fertilizer.)

Eri Silk

Eri silkworms spin an open ended cocoon and therefore the pupa does not have to be stifled to harvest the silk. The cocoon cannot be reeled, only spun.

This is a good reason for calling eri silk ahimsa silk. However, until recently, the principle reason for rearing eri was for the protein rich pupa. The silk was merely a by-product. All the villages I visited continue to use the pupa as delicious food for themselves or their animals.

Tussah Silk

One of the most amazing things we learned about tussah on this trip is that there is a huge variety of tussah silkworms within each area and state. To help the tribal rearers maintain their lifestyle linked with the wild silk and realize a better livelihood, the CSB has helped them to semi-domesticate some of these varieties. This means rearers can cultivate "gardens" of food trees and raise the silkworms there, allowing them to go home to their families in the evening instead of going far away to the forest to hunt for them.

The majority of the tussah silk is reeled and therefore the pupa is stifled. The pupa is an important source of protein for the people and their animals. The mother moth is checked for disease so the rearer can be provided with, disease free layings of eggs and therefore realise more profit from their labours.

Collecting the tussah cocoons from the forest was depleting the silkworms and the diversity of species was diminishing. Today there are fewer cocoons collected from the very tall trees in the forests.

Muga Silk

There is not much muga fabric produced and it is scarce outside of Assam. It is a special cloth for the Assamese used for many of their rites of passage.

The majority of the muga is reeled and therefore the pupa is stifled. As with the tussah, the pupa is an important source of protein for the tribal people and their animals.