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By M. H. Rana, PgD in CIT(JU), MBA in Textile(PAU), Lect: PISFT, Consultant: Aftab Group, Nannu group, Dhaka textile. www.matherana.synthasite.com

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Sampling of Yarn,

** New Yarns/Colors for Fall 2015 noted in rust

Click on Yarn Name or Photo to go to yarn sample card - See Back List Yarns at bottom of this page

ALLEGRO Aran 100% merino **New Yarn for Fall 2015**		**ALLEGRO DK** 100% merino **New Yarn for Fall 2015**	
ALLEGRO Lace 100% merino **New Yarn for Fall 2015**		**Aria** **38% rayon/ 35% wool/ 18% poly/ 9% nylon**	
Chunky Mochi **80% Merino wool/ 20% nylon** See Swatches - here. **2 New Colors for Fall 2015**		**Cotton Chenille** **100% cotton**	

Cotton Twirl **90% cotton/** **10% elastic nylon** **3 New Colors for Spring 2015**		**Cuddles** **100% micro acrylic**	
Cuddles DK **100% micro acrylic**		**Danube** in 3 weights DK, Aran, Bulky **4 New Colors for Fall 2015** **Here**	
Fizz **100% soft polyester**		**Gold Rush** **cotton/wool/nylon/metallic**	
Inca Clouds solids & slow stripes **New Yarn for Fall 2015**		**Kid Merino** **28% kid mohair/** **28% merino wool/** **44% nylon**	

Little Flowers **96% nylon/** **4% metallic fiber** **5 New Colors for Spring 2015**		**Merino 5** **100% machinewash merino wool** **Printed** colors **Solid** colors **5 New Colors for Fall 2015** **Here**	
Mini - Mochi **80% Merino wool/** **20% nylon** **2 New Colors for Fall 2015**		**Mini Solid** **80% Merino wool/** **20% nylon** **(solid colors of Mini-Mochi)**	
Mochi Plus **80% Merino wool/** **20% nylon** **2 New Colors for Fall 2015**		**Nocturne** 2 weights: DK & Aran **47% merino wool/** **33%acrylic/** **20%nylon**	
Panda Silk (fingering weight) **52% bamboo/** **43% machinewash merino wool/** **5% combed silk**		**Panda Cotton** **with added** ***Stria Dyed*** **59% bamboo/** **25% cotton/** **16% elastic nylon** **5 New Colors for Spring 2015**	

Panda Pearl **53% bamboo/42% merino wool/5% silk** **7 New Colors for Fall 2015** **Here**		**Party** **100% soft nylon** **3 New Colors for Spring 2015** .	
Plus Solid **80% Merino wool/ 20% nylon** (solid color version of Mochi Plus)		**Sausalito** **80% Merino wool/ 20% nylon**	
Splash **100% polyester** .		**Squiggle** **50/50 nylon/polyester** .	

This article is about the fibre product. For the type of joke, see Shaggy dog story. For the computing resource-management platform, see Hadoop.

Yarn

Spools of thread

Definition:

Yarn is a long continuous length of interlocked fibres, suitable for use in the production of textiles, sewing, crocheting, knitting, weaving, embroidery, and ropemaking.[1] Thread is a type of yarn intended for sewing by hand or machine. Modern manufactured sewing threads may be finished with wax or other lubricants to withstand the stresses involved in sewing.[2] Embroidery threads are yarns specifically designed for hand or machine embroidery.

The word yarn comes from Middle English, from the Old English *gearn*, akin to Old High German's *garn* yarn, Greek's *chordē* string, and Sanskrit's *hira* band.[1]

Materials

Yarn can be made from any number of natural or synthetic fibers. There are two main types of yarn: spun and filament.

Fibers

Cotton being spun

The most common plant fiber is cotton, which is typically[3] spun into fine yarn for mechanical weaving or knitting into cloth.

Cotton and polyester are the most commonly spun fibers in the world. Cotton is grown throughout the world, harvested, ginned, and prepared for yarn spinning. Polyester is extruded from polymers derived from natural gas and oil. Synthetic fibers are generally extruded in continuous strands of gel-state materials. These strands are drawn (stretched), annealed (hardened), and cured to obtain properties desirable for later processing.

Synthetic fibers come in three basic forms: staple, tow, and filament. Staple is cut fibers, generally sold in lengths up to 120mm. Tow is a continuous "rope" of fibers consisting of many filaments loosely joined side-to-side. Filament is a continuous strand consisting of anything from 1 filament to many. Synthetic fiber is most often measured in a weight per linear measurement

basis, along with cut length. Denier and Dtex are the most common weight to length measures. Cut-length only applies to staple fiber.

Filament extrusion is sometimes referred to as "spinning" but most people equate spinning with spun yarn production.

The most commonly spun animal fiber is wool harvested from sheep. For hand knitting and hobby knitting, thick, wool and acrylic yarns are frequently used.

Other animal fibers used include alpaca, angora, mohair, llama, cashmere, and silk. More rarely, yarn may be spun from camel, yak, possum, qiviut, cat, dog, wolf, rabbit, or buffalo hair, and even turkey or ostrich feathers. Natural fibers such as these have the advantage of being slightly elastic and very breathable, while trapping a great deal of air, making for a fairly warm fabric.

Other natural fibers that can be used for yarn include linen and cotton. These tend to be much less elastic, and retain less warmth than the animal-hair yarns, though they can be stronger in some cases. The finished product will also look rather different from the woollen yarns. Other plant fibers which can be spun include bamboo, hemp, corn, nettle, and soy fiber.

Comparison of material properties

A full restored and operative primary-level spinning machine taking freshly carded cotton tails from barrels and spinning them into yarn at the Quarry Bank Mill in the UK.

In general, natural fibers tend to require more careful handling than synthetics because they can shrink, felt, stain, shed, fade, stretch, wrinkle, or be eaten by moths more readily, unless special treatments such as mercerization or superwashing are performed to strengthen, fix color, or otherwise enhance the fiber's own properties.

Protein yarns (i.e., hair, silk, feathers) may also be irritating to some people, causing contact dermatitis, hives, wheezing, or other reactions. Plant fibers tend to be better tolerated by people with sensitivities to the protein yarns, and allergists may suggest using them or synthetics instead to prevent symptoms. Some people find that they can tolerate organically grown and

processed versions of protein fibers, possibly because organic processing standards preclude the use of chemicals that may irritate the skin.

When natural hair-type fibers are burned, they tend to singe and have a smell of burnt hair; this is because many, as human hair, are protein-derived. Cotton and viscose (rayon)yarns burn as a wick. Synthetic yarns generally tend to melt though some synthetics are inherently flame-retardant. Noting how an unidentified fiber strand burns and smells can assist in determining if it is natural or synthetic, and what the fiber content is.

Both synthetic and natural yarns can pill. Pilling is a function of fiber content, spinning method, twist, and fabric construction.

Yarns combining synthetic and natural fibers inherit the properties of each parent, according to the proportional composition. Synthetics are added to lower cost, increase durability, add unusual color or visual effects provide machine washability and stain resistance, reduce heat retention or lighten garment weight.

Structure

Main article: Spinning (textiles)

A Spinning Jenny, spinning machine which was significant in the beginning of the Industrial Revolution

S- and Z-twist yarn

Spun yarn is made by twisting staple fibres together to make a cohesive thread, or "single."[4] Twisting fibres into yarn in the process called spinning can be dated back to the Upper Paleolithic,[5] and yarn spinning was one of the very first processes to be industrialized. Spun yarns may contain a single type of fibre, or be a blend of various types. Combining synthetic fibres (which can have high strength, lustre, and fire retardant qualities) with natural fibres (which have good water absorbency and skin comforting qualities) is very common. The most widely used blends are cotton-polyester and wool-acrylic fibre blends. Blends of different natural fibres are common too, especially with more expensive fibres such as alpaca, angora and cashmere.

Yarn is selected for different textiles based on the characteristics of the yarn fibres, such as warmth (wool), light weight (cotton or rayon), durability (nylon is added to sock yarn, for example), or softness (cashmere, alpaca).

Yarn is composed of twisted strands of fiber, which are known as plies when grouped together. These strands of yarn are twisted together (plied) in the opposite direction to make a thicker yarn. Depending on the direction of this final twist, the yarn will have either *s-twist* or *z-twist*. For a single ply yarn, the direction of the final twist is the same as its original twist. The twist direction of yarn can affect the final properties of the fabric, and combined use of the two twist directions can nullify skewing in knitted fabric.

Filament yarn consists of filament fibres (very long continuous fibres) either twisted together or only grouped together. Thicker monofilaments are typically used for industrial purposes rather than fabric production or decoration. Silk is a natural filament, and synthetic filament yarns are used to produce silk-like effects.

Texturized yarns are made by a process of air texturizing filament yarns (sometimes referred to as *taslanizing*), which combines multiple filament yarns into a yarn with some of the characteristics of spun yarns.

Color

Yarn comes in many colors

Yarn may be used undyed, or may be coloured with natural or artificial dyes. Most yarns have a single uniform hue, but there is also a wide selection of variegated yarns:

- Heathered or tweed: yarn with flecks of different coloured fiber
- Ombre: variegated yarn with light and dark shades of a single hue
- Multicolored: variegated yarn with two or more distinct hues (a "parrot colourway" might have green, yellow and red)
- Self-striping: yarn dyed with lengths of color that will automatically create stripes in a knitted or crocheted object
- Marled: yarn made from strands of different-colored yarn twisted together, sometimes in closely related hues

Measurement

A comparison of yarn weights (thicknesses): the top skein is aran weight, suitable for knitting a thick sweater or hat. The manufacturer's recommended knitting gauge appears on the label: 5 to 7 stitches per inch using size 4.5 to 5.1 mm needles. The bottom skein is sock weight, specifically for knitting socks. Recommended gauge: 8 to 10 stitches per inch, using size 3.6 to 4.2 mm needles. These yarns are manufactured in Japan and have variegated colours in a random-dyed pattern.

Spool of all purpose sewing thread, closeup shows texture of 2-ply, Z-twist, mercerized cotton with polyester core.

Yarn drying after being dyed in the early American tradition, at Conner Prairie living history museum.

Yarn quantities for handcrafts are usually measured and sold by weight in ounces or grams. Common sizes include 25 g, 50 g, and 100 g skeins. Some companies also primarily measure in ounces with common sizes being three-ounce, four-ounce, six-ounce, and eight-ounce skeins. Textile measurements are taken at a standard temperature and humidity, because fibers can absorb moisture from the air. The actual length of the yarn contained in a ball or skein can vary due to the inherent heaviness of the fibre and the thickness of the strand; for instance, a 50 g skein of lace weight mohair may contain several hundred metres, while a 50 g skein of bulky wool may contain only 60 metres.

There are several thicknesses of craft yarn, also referred to as weight. This is not to be confused with the measurement and/or weight listed above. The Craft Yarn Council of America is making an effort to promote a standardized industry system for measuring this, numbering the weights

from 1 (finest) to 6 (heaviest).[6] Some of the names for the various weights of yarn from finest to thickest are called lace, fingering, sport, double-knit (or DK), worsted, aran (or heavy worsted), bulky, and super-bulky. This naming convention is more descriptive than precise; fibre artists disagree about where on the continuum each lies, and the precise relationships between the sizes.

Another measurement of yarn weight, often used by weavers, is wraps per inch (WPI). The yarn is wrapped snugly around a ruler and the number of wraps that fit in an inch are counted.

Labels on yarn for handicrafts often include information on gauge, known in the UK as tension, which is a measurement of how many stitches and rows are produced per inch or per cm on a specified size of knitting needle or crochet hook. The proposed standardization uses a four-by-four inch/ten-by-ten cm knitted or crocheted square, with the resultant number of stitches across and rows high made by the suggested tools on the label to determine the gauge.

In Europe, textile engineers often use the unit tex, which is the weight in grams of a kilometre of yarn, or decitex, which is a finer measurement corresponding to the weight in grams of 10 km of yarn. Many other units have been used over time by different industries.

Yarn Count:

Count is a numerical value, which express the coarseness or fineness (diameter) of the yarn and also indicate the relationship between length and weight(the mass per unit length or the length per unit mass)of that yarn. Therefore, the concept of **yarn count** has been introduced which specifies a certain ratio of length to weight.

The fineness of the yarn is usually expressed in terms of its linear density or count. There are a number of systems and units for expressing yarn fineness. But they are classified as follows .

Types of Yarn Count:

1. Direct Count System
2. Indirect Count System

1. Direct Count System:

The weight of a fixed length of yarn is determined. The weight per unit length is the **yarn count**! The common features of all direct count systems are the length of yarn is fixed and the weight of yarn varies according to its fineness.

The following formula is used to calculate the yarn count:

N= (W×l) / L

Where,

N =Yarn count or numbering system
W =Weight of the sample at the official regain in the unit of the system
L=Length of the sample
l=Unit of length of the sample

Numbering System	Unit of Length (l)	Unit of Weigt (w)
English cotton count, N_e (N_eB)	840 yards (yds)	1 pound (lb)
Metric count, N_m	1000 metres / 1km	1 kg
Woollen count (YSW)	256 yards	1 pound (lb)
Woollen count (Dewsbury)	1 yard	1 ounce (oz)
Worsted count, N_eK	560 yards	1 pound (lb)
Linen count, N_eL	300 yards	1 pound (lb)

In brief, definition of the above Systems is as follows

1. Tex system .....NO. of grams per 1000 meters
2. Denier .....No. of Grams per 9000 meters
3. Deci Tex .....No. of grams per 10,000 metres
4. Millitex .....No. of milligrams per 1000 metres
5. Kilotex..... .No. of kilograms per 1000 metres.
6. Jute count.....No. of lb per 14,400 yds

The Tex of a yarn indicates the weight in grammes of 1000 metres yarn. So that 40Tex means 1000 meters of yarn weigh 40gm.

From above discussion it is concluded that, higher the yarn number(count) coarser the yarn and lower the number finer the yarn.

2. Indirect Count System:
The length of a fixed weight of yarn is measured. The length per unit weight is the yarn count. The common features of all indirect count systems are the weight of yarn is fixed and the Length of yarn varies according to its fineness.

The following formula is used to calculate they are count:

N = (L×w) / W×l

Where,

N =Yarn count or numbering system
W =Weight of the sample at the official regain in the unit of the system
L=Length of the sample
l=Unit of length of the sample
w = Unit of weight of the sample.

Numbering System	Unit of Length (l)	Unit of Weigt (w)
English cotton count, N_e (N_eB)	840 yards (yds)	1 pound (lb)
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Linen count, N_eL	300 yards	1 pound (lb)

1. Ne: No of 840 yards yarn weighing in One pound

The Ne indicate show many hanks of 840 yards
Means 32 hanks of 840yards i.e.32x840 yards

2. Nm: No of one kilometer yarn weighing in One Kilogram

length weigh one English pound. So that 32 Ne length weigh one pound.

For the determination of the count of yarn, it is necessary to determine the weight of a known length of the yarn. For taking out known lengths of yarns, a wrap-reel is used. The length of yarn reeled off depends upon the count system used. One of the most important requirements for a spinner is to maintain the average count and count variation within control.

Yarn Count Variation:

The term count variation is generally used to express variation in the weight of a lea and this is expressed as C.V.%. The number of samples and the length being considered for count checking affects this. While assessing count variation, it is very important to test adequate number of leas. After reeling the appropriate length of **yarn**, the yarn is conditioned in the standard atmosphere for testing before it's weight is determined.

http://textilelearner.blogspot.com/2012/05/yarn-numbering-system-yarn-count-direct.html#ixzz3igGowkex