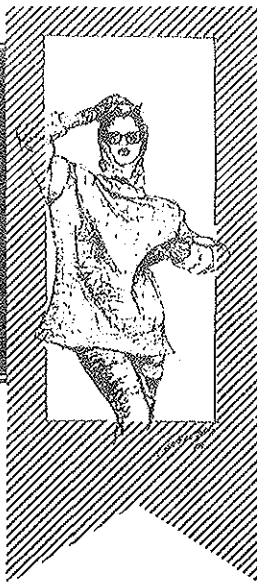




Utah State University
Cooperative
Extension Service



CLOTHING MANAGEMENT FACT SHEET

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Knit Know How

ABOUT KNITS

Knit fabrics have become popular because they are comfortable, versatile, shed wrinkles, and travel well. Knits, on the whole, are easy to sew, especially for beginners. Knits can be found in abundance all year long depending on current fashion trends, ranging from stable double suit weight knits to soft supple jerseys. Bulky knits are available for sweaters and jackets, soft fleece and spandex are great for sports and activewear while jerseys and tricot are the choice for lingerie and up-to-date fashions for every scene. The mix and matchable knits have so many faces you could create an entire wardrobe using knits alone.

Knits are also a first choice with the textiles industry and clothing manufacturers due to the simple production process. Manufacturing knitted cloth requires less lead time than do wovens and the process and design can be switched readily from one structure to another which provides an easy way to change design.

Knit Fabric Construction

Knit fabrics are basically constructed by interlocking looped stitches. This process allows a degree of stretch in every knit fabric. The two methods of knitting are *weft* and *warp*.

Weft knitting (see Fig. 1) is a process where loops are made in a continuous thread that runs crosswise to the fabric. *Single knits*, *double knits*, and their variations are made using this process. Most knits used for clothing are produced by the weft method.

In **warp knitting** (see Fig. 2) the yarns run lengthwise to the fabric, rather than across which results in a flatter, closer, and less elastic knit. There are four classes of warp knits; *tricot*, *Raschel*, *simplex* and *Milanese*. The last two are of minor importance, especially in clothing.

Knit Categories

Most knits fit into one of five categories:

1. Firm, stable knits include *double knits* and *Raschel*.

Double knits have a smooth surface on both sides of the fabric. It is difficult to determine the right and wrong side unless the right side has a decorative design. They do not curl at the edges nor do

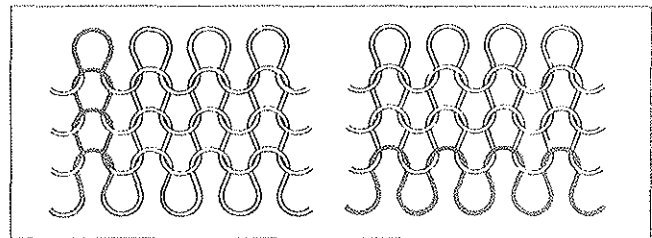


Figure 1. Weft knit. Left: A wale* in a plain knit. Right: A course* in a plain knit. *See "Knit Terminology."

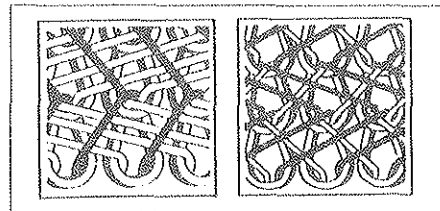


Figure 2. Warp knit. Left: Tricot Right: Raschel

they run. They are somewhat like two fabrics interlocked into one and are noted for their stability and shape retention. Double knits can be made to resemble woven fabrics like denim, seersucker, and pique. They are an excellent choice for pants, suits, jackets and dresses.

Raschel knits (see Fig. 2) are sturdy with little or no stretch. They often resemble crocheted fabric in appearance and may be lacy and open in texture. Raschel knits may be made from bulky or fine yarns. They can be either single or double knitted and include fabrics such as powernet for foundation garments and swimsuits, thermal cloth, and lace. Raschel knits are very versatile fabrics with many varied uses.

2. Lightweight single knits include *jersey*, *tricot* and *interlock*. They have little stretch lengthwise but they will stretch crosswise. They are less stable than double knits.

Jersey knits are light- to medium-weight fabrics sold either in tubular form or as flat goods. If you pull the crosswise edge of a jersey knit, it will roll to the right side. They are less stable, tend to curl at the edge, and run on the crosswise cut edge. There are many variations of jersey: jacquard patterned prints and stripes, eyelet, and surface printed designs. Fleece, velour, and terry knit

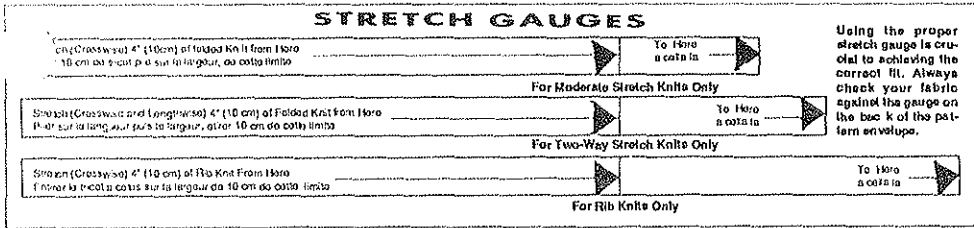


Figure 5. Stretch Gauge

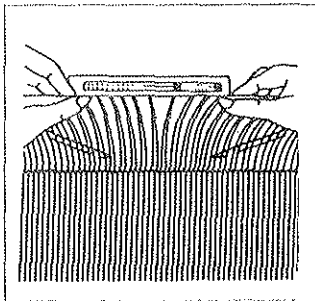


Figure 6. Using a Stretch Gauge.

is incorrect for sewing on knits. It may also mean your needle is bent or damaged.

Thread should match or be slightly darker if you can't find a perfect match. Gauge your thread by the weight of your knit. For lightweight knits, use fine polyester, or polyester-cotton thread. When using medium to heavier knits, choose all-purpose polyester, or polyester-cotton thread.

Knit garments will hold their shape and look professionally finished if they are interfaced, such as collars, facings, buttonholes, plackets and patch pockets. Choose either a fusible tricot knit or a stretch nonwoven interfacing. Fusibles work well on knits if you follow the manufacture's directions (see Supply Guide, Fig. 7).

Equipment & Techniques	Lightweight	Mediumweight	Bulky
Machine Needle Sizes and Types	size 9 (70) or 11 (80) Ballpoint or universal	size 14 (90) Ballpoint or universal	Size 14 (90) Ballpoint or universal
Stitch Length	12 to 16 per inch (2.5 cm)	9 to 12 per inch (2.5 cm)	9 to 12 per inch (2.5 cm)
Millimeter Stitch Setting	2.5 to 2	3 to 2.5	3 to 2.5
Thread	Extra-fine polyester or polyester/cotton.	all-purpose polyester or polyester/cotton.	All-purpose polyester or polyester/cotton.

Figure 7. Supply Guide

Preparing Fabric

It is always recommended to preshrink knits. Wash and dry them exactly as you will care for them after they have been sewn. For dry cleaning, either have the cleaners pre-clean the knit for you or take the fabric to a bulk cleaners and do it yourself.

Once the knit has been preshrunk, check the lengthwise crease. If it is still there, steam press to remove. If it cannot be removed, fold the fabric so the crease is not visible on your

Knit Sewing Supplies

You will need *needles*, *thread* and most likely *interfacing*. (See Supply Guide.) Check your sewing machine manual for recommendations for needles. A ball point needle that is designed for knits is always a good choice; however, universal needles may work very well. If your machine skips stitches, your needle choice

garment when cutting it out. To use contrasting rib, make sure the dye is stable and will not bleed onto the rest of your garment.

Layout and Cutting

- *Determine right and wrong side and nap of fabric.* If you can't decide which is which, designate one side and mark so all pieces are consistent and you don't get confused when sewing them together. The nap will be smoother and wear longer going down but look brighter going up. Be aware of pattern and stripe direction. If you have a one-way design, cut as you would fabric with nap.

- *Check pattern layout.* If your crease wouldn't come out, rearrange fabric and layout so crease does not show on garment.

- *Lay the pattern on your fabric in the correct stretch direction for your pattern.* Check the cut edge to determine if your fabric edge will run. If it does, position the run-prone edge at the garment hemline if the nap or design direction of the fabric does not matter.

- *Keep fabric flat and straight.* A smooth hard cutting surface will help.

- *Use long sharp pins.* Take care to keep fabric smooth as you pin it in place. Cutting is easier if you lift the edge slightly as you cut.

- *Use sharp shears for smooth scissor cuts.* Use hand to keep knit smooth and straight so cutting distortion does not occur. Be careful to avoid stretching as you cut.

- *Marking knit fabrics will be easier with marking pencils, chalk or fabric marking pens.* Test a scrap of fabric beforehand to determine best tool. As a rule, the tracing wheel will not work as well due to the unstable and spongy nature of the knit.

Seams and Seam Finishes

Effective knit sewing techniques will help maintain the natural stretch of the fabric. It is also important to control the stretch as you sew to keep seams smooth and stable. Test your seam choice on a fabric scrap before you begin sewing on your garment.

- *Plain seam* - when using a straight stitch, build in elasticity by slightly stretching fabric as you sew. Hold fabric in front and back of pressure foot but do not pull it through.

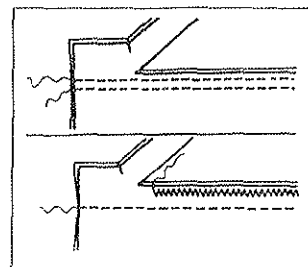


Figure 8. Plain Seams

Avoid creating a pressing shine on hems, seams, edges, cuffs, etc. This is more likely to occur on darker-colored fabrics. Use a teflon iron cover or a pressing cloth.

For sweaters and bulky knits, block when wet rather than press. Pat the fabric or garment into shape on a smooth, flat, (absorbent if wet) surface. Steam if necessary to reshape and press. Allow the fabric to dry completely.

CARE OF KNITS

Caring for knits is generally very simple, which is the endearing quality of this fabric. They can usually be washed and dried using home laundering methods with little other attention or care. The care instructions for ready-made garments are usually included with the garment. Care instructions should also be available for fabric consumers. You will find care instructions at the end of the fabric bolt or a code that will refer to a certain type of care. Be sure to ask the sales personnel for this information—especially if you are buying fabric remnants or flat fold goods. However, on some remnant pieces, fiber is not always known.

Knit care will depend on the fibers from which the knit fabric is made. Cotton/polyester combinations are the easiest to care for. Cotton may shrink and stretch when not combined with polyester. Polyester is easy to care for but may not be as comfortable and may wrinkle more when left in the dryer. There are many ramie and acrylic knit fabrics and garments on the market. They are both very stable and will wrinkle and lose their shape. When they are combined with polyester, they become easier to care for and nicer to wear. Wool and linen knits should be dry cleaned and will last a long time if properly cared for. Hand washing is possible. Dry cleaning will extend their wearability. Spandex, Lycra, and nylon should not be dried in the dryer or washed in hot water. They will last longer if washed in cool or lukewarm water and air dried. Many garments made from these fibers are used in swimming pools and for activewear where chlorine and body perspiration and oils may damage fibers if they are not washed after use.

REFERENCES:

Bendel, Peggy. Sew Much Better. Peoria, Ill.: PJS Pub., 1989.

Hollen, N.; Saddler, J.; and Langford, A.L. Textiles, 6 ed. NY: McMillan Pub. Co., 1988.

Kleeberg, Irene Cumming. The Butterick Fabric Handbook. NY: Butterick Pub., 1975.

Ladbury, Ann. Fabrics. London: Sidgwick & Jackson, 1985.

Sewing Specialty Fabrics, Singer Sewing Reference Library. Minnetonka, Minn.: Cy DeCosse, 1986.

Vogue/Butterick. Fine Sewing: A Comprehensive Guide of How-to Sewing Techniques. NY: J.E. Pub., 1990.

Wingate, I.B. and Mohler, J.F. Textile Fabrics and their Selection, 8 ed. Englewood Cliffs, N.J.: Prentice-Hall, 1984.



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