UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE

4-H Consumer Judging Guide

Jeans

Jeans, both traditional ones and slacks with a jeans-like appearance, are popular for all family members. They are usually worn as casual wear for all ages and both sexes. Available in a variety of styles, colors, fabrics and prices, jeans provide a real challenge to the comparative shopper. Good cotton denim jeans are durable, comfortable, economical and easy to care for.

What Fibers Do Jeans Contain?

The label and hangtag on a pair of jeans tells the consumer a lot. You may choose 100% cotton or blends such as 50% cotton with 50% polyester and, occasionally, 50% cotton with nylon and polyester fibers. Nylon blends add stretch and comfort.

Polyester contributes durability, dye stability, shrink resistance and wrinkle resistance. Ease of care in laundering as well as shortened drying times result from the presence of the polyester fiber. Many dyes used with polyester are very stable and retain the rich indigo blue color through repeated washings, more so than dyes used for 100% cotton. A new cellulosic-based fiber, Tencel, is being introduced in denim blends with polyester. Jeans made of a blended cotton and a man-made fiber, such as nylon or polyester, will require little or no ironing. Nylon added to cotton reinforces denim and increases abrasion resistance. All man-made fibers are sensitive to a hot iron.

One hundred percent cotton jeans tend to be the most comfortable, the softest and most absorbent. All cotton jeans also become softer to the touch as they are worn and laundered. And, all cotton jeans do not pill (form fuzzy balls which cling to the surface) rapidly.

What Is Denim?

Jeans have traditionally been made of 100% cotton because of its sturdiness and durability. Denim refers to fabric construction of twill woven fabric, not to an actual fiber. Lengthwise yarns are dyed indigo to blue/black, and crosswise yarns are white. The yarns are twisted so tightly that the indigo dye doesn't always penetrate, leaving the core of the fabric white. As the fabric abrades or wears away during use, the white cotton jean surface appears, giving denims a lighter or medium blue color.

Denim is traditionally defined as a "washable, inexpensive, strong, twilled cotton cloth made of a single yarn." Denim cloth is traditionally made of indigo blue-colored warp and white filling yarn.

Advantages of 100% Cotton Jeans

- They are the most comfortable, softest and most absorbent.
- They become softer to the touch as they are worn and laundered.
- They do not pill readily (fuzzy balls that cling to the surface of fabric).

Disadvantages of 100% Cotton Jeans

- High shrinkage

Disadvantages of Blended Jeans

- They remain relatively stiff after wearing and laundering.
- They tend to pill rather easily.

Distressed Denim

The fashion look in jeans is distressed denim. Identified by several terms including **acid washed, stonewashed, ravaged, aged, white washed, bleached, super bleached** and simply **prewashed**, the resulting fabric features a pre-worn look. Treatments give softer hand, more texture, color variation from frosted, bleached light to faded looks, and distressed edges. Years ago consumers would break in their own denims by wearing and laundering. The trend now is to buy jeans already broken in.

Distressed denim, often identified by the terms **acid washed** or **washed**, is achieved through chemical (bleaching), mechanical (rubbing or abrading), or a combination of both processes. Most distressed jean looks are achieved by some variation of tumbling denim fabric with special pumice stones soaked in a bleaching agent called potassium permagnate. Different sized stones create varying effects. In addition to the bleaching effect, both the pumice stones rubbing the fabric surface, as well as the laundry action itself, soften the fabric and abrade or create a worn look on the fabric surface. A deep rinse is needed to remove excess bleach in the fabric. If not removed, fabrics can yellow when exposed to warm water, detergent, heat from the clothes dryer, or sunlight. The damage is permanent and cannot be removed. Although the term **acid washed** is sometimes used to describe this fabric, no acid is used in the process.

Stonewashing is time-consuming and expensive, which is reflected in the cost of garments made from these fabrics. As a result, consumers will pay more for distressed jeans than similar jeans made from traditional denim fabric. Some manufacturers estimate that chemical treatments add $11 to the cost of a pair of jeans, while stonewashing adds an additional $3.

New processes are being developed to achieve the same effect at lower costs. Sandblasting is a process which projects particles at denim fabric under controlled pressure settings. The treatment is more mechanical and abrasive than chemical. Another approach uses enzymes which break down cotton fibers used in denim, causing the highly twisted yarns to release indigo dye and soften.

Regardless of the method used to produce distressed denim, durability is decreased and the life of the garment shortened. Excessive bleaching and abrading weaken fibers and may cause holes to form and seams to break after a few wearings. It is estimated that "acid wash" processing is equal to 25 home launderings. Shrinkage becomes less of a problem in the purchased garment, however, since the "acid wash" or other processes also pre-shrink the fabric.

Several products or kits are now available to consumers who want to "distress" their own denim fabric. All systems use some type of mild bleaching action or mechanical abraders such as a pumice stone for rubbing or emery boards. These processes may not be as harsh as commercial treatments but may still lower the garment's durability and wear life.

Denim producers also use special or irregular yarns and spinning techniques to give denim a cleaner appearance and softer, loftier hand than traditional denims. Some result in an "antique" look without distressed edges. Or, a variety of finishes, such as sandblasting and stonewashes, are used to enhance the antique or worn looks.

What Does a Consumer Look For?

Shrink Resistance

Jeans should be shrink resistant to 1 to 2 percent. If the label does not guarantee this, buy a larger size to allow for shrinkage in washing and drying. Shrinkage of more than 2 percent will result in a size change. Some consumers like jeans that are not preshrunk to permit "form fitting" (wetting the jeans and allowing them to dry on the body). Jeans made from polyester/cotton blends should be more stable or shrink resistant than jeans of 100 percent cotton. Special finishes, such as Sanforset, applied to some cotton jeans control shrinkage as well as reduce puckering and wrinkling. Those which have received "acid wash" or other rinsing treatments or "washes" are preshrunk during processing. Consider these factors when determining the size to buy.

Styling

Jeans, jeans, and more jeans! Do you want basic cut jeans or jeans with special detailing? Do you prefer products made by a particular manufacturer or designer jeans? Do you prefer classic, full cut, or high fashion styles? Straight leg, button-fly, flared cut, boot cut, western style, Capri, carpenter, cargo… the list goes on and on.

The leg width adds a fashion detail and influences garment fit. Straight leg, boot cut, flare, and soft slack silhouettes are choices available on the market, plus some novel styles. For instance, straight leg pants for men measure 20 inches at the knee and 20 inches at the leg bottom with a fitted seat and thigh area. The boot cut is a modified flare with a 19-inch knee to a bottom width of 21 inches. The flared silhouette is approximately 21 inches at the knee with a 23-inch bottom. The soft slack is fuller, with a $23^{2}/_{3}$-inch knee tapering to a 19-inch bottom. Thus, the jean leg style, such as straight or flare, and the amount of flare will vary.

Fashion and styling details are given more attention by designers, as reflected in market offerings with much styling variety beyond traditional jeans looks. Oversized, baggy models in various

washes and with localized abrasion are newer offerings. Other looks are achieved in pleats, tucks, special yoke insets of contrast or shape, button treatments, and pocket designs.

Fashion detailing is evident in pockets, especially hip pockets. Pocket shape, top-stitching pattern and other trim ideas are varied to create interesting and distinctive garment detail; however, some companies promote plain pocket jeans. Four- and five-pocket styling dominate the jeans market.

Named clothing designers are creating jeans for all members of the family. In some cases, there are special or subtle decorating details, such as designer initials on snaps or nail head reinforcements, embroidered signatures, or symbols on watch or hip pockets. Some designers make cuts for fuller figures or body builds while others cater to persons with slender bodies. New trademark names for various fit/cuts highlight focus on how jeans fit, including adjusting cut or offering more ease in menswear and womenswear. Consumers have cited satisfaction in fit as a reason why they select a particular brand or designer style. Designer jeans tend to be more costly. Evaluate features and make comparisons.

Other features are stretch waistbands for men's pants that give and adjust as the individual moves or bends. Also, styles may have half-elastic back or side elastic inset waistbands for children's smaller sizes and to contour misses' and women's jeans. Other details are self or decorative belts and decorative appliqués. Color choices include traditional indigo blue or black to frosted, washed, powdered lights or dark washes. More color interest in denim is seen in fashion colors: brown, tan, wheat, gold, brick red, olive, purple, and teal. A few companies offer vivid colors such as bright turquoise, fuchsia, and even orange. By the mid-nineties, manufacturers introduced tinted neutrals and soft hues such as straw yellow, terra cotta, and stone. Deep tones and overdyes add to the mix. The use of various color thread for top stitching can add decorative detailing. Instead of matching thread, orange, white, or light blue thread is used on blue denim.

Construction

The way jeans are cut, put together and finished will influence their appearance and durability. Since you will wear jeans often, the garment must be made well. In general, check for smooth, straight stitching, even stitch length, and threads secured at ends of stitching. Extra stitches, bar tacks, or rivets serve as reinforcements at places of stress – belt loops, at pocket openings and below the zipper.

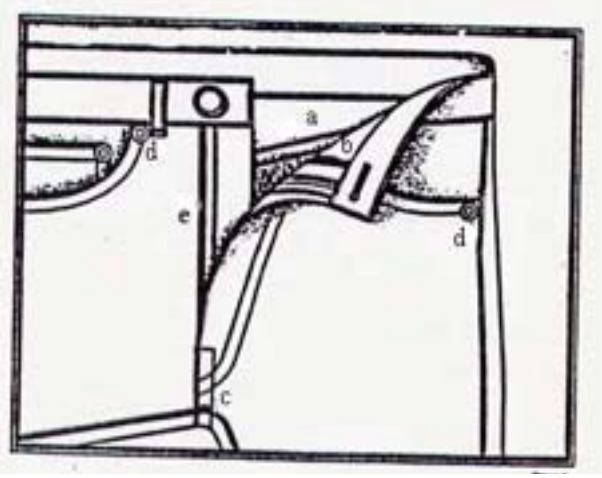
Consider these details:

Waistband – A waistband made of two or more layers of fabric will reduce stretching in the waist area. The ends should be carefully folded back with the ends enclosed (rather than overcasts) and stitched down to prevent fraying. It should be attached to the body of the jeans with two rows of stitching for added durability. If the jeans have no waistband, look for interfacing (an extra layer of firm fabric sewn into the waist seam for stability).

Placket – The fly area, whether with zipper or buttons, should be faced or of a double fabric thickness. Look for straight, secure stitching and at least one bar tack to reinforce the bottom of the placket. The fly facing or shield should be tapered and reinforced with tacking or fabric tape. The zipper should be sturdy enough for the garment fabric and of adequate length to easily put on jeans. Be sure the zipper has a secure lock feature. That is, the zipper glide should remain in place at the top when stress is applied.

Seams/Stitching – Flat fell seams have two rows of stitching and are enclosed on both the outside and inside of the jeans (**Figure 1, a**). Seams of this type leave no open seam allowances to unravel during wear and laundering. Check to be sure seams are smoothly constructed and firmly stitched. If seams are not flat fell, be sure the seams are serged (overcast with thread) to cover the raw fabric edges and thus prevent raveling. (**Figure 1, b**). Check the joining of seams at crotch and yoke areas. The joining should be accurate and seaming properly finished for a smooth garment appearance and durability.

Figure 1



Reinforcements – Look for thread bar tacks or rivets at places of stress like corners of pockets, belt loops and the bottom of the zipper placket (**Figure 1, d**). Bar tacking is defined as "a close series of stitches crossing a piece of cloth in order to reinforce it at a point of concentrated strain."

Zipper – The zipper will be more durable if the fabric on both sides has been turned under and stitched. Because denim fabric is so heavy, a metal zipper offers more durability than a nylon zipper (**Figure 1, e**). The zipper track should be ¼ inch wide. Be sure it has a self-locking pull. That means the zipper glide should remain in place at the top when stress is applied. The zipper should be adequate length to comfortably put on the jeans. The bottom of the fly should be reinforced for extra strength. The fly should be faced or be made of a double-fabric thickness.

Belt Loops – There are three important factors concerning belt loops that one should consider before buying any pair of jeans.

a. The number and arrangement of the loops is important for wearing comfort. If there are only three belt loops across the back of the pants, one at each hip and one in the middle, the belt will tend to "pull up" on the middle loop causing the pants to be uncomfortable and unsightly. The belt will also lose its good appearance after a time. A total number of 6 or 7 loops with 4 to 5 loops across the back is preferable.
b. How the loops are attached to the jeans – for maximum durability, all belt loops should be bar tacked at the top and bottom. Belt loops sewn into the waistband can be torn out relatively easily.
c. The size of the belt that the jeans can accommodate. Belt fashion widths vary from year to year. Be certain the loops will accommodate your favorite size of belt.

Other Details – Decorative detailing, such as embroidery, contrasting pocket insets, or piping, should be evenly and smoothly applied. Buttonholes should be stitched closely, with no loose threads or exposed edges. Quality pockets have edges carefully turned under and have been placed evenly and securely on the garment. Lining or pocket fabric should be durable with edges finished. Hems should be even, flat and securely stitched.

Sizing

Men's jeans are sized according to waist and inseam measurements. Jeans for girls and women are sized by waist and hip measurements. Boy's jeans come in slim, regular and husky. **Children's jeans** are sized by waist and height measurements. If girls wish to purchase men's jeans, they should refer to special retail charts available at stores, in retail catalogs or on some product charts for sizes. Use women's hip measurements to compare with men's waist measurements on chart. Remember, a girl's waist-hip contour and proportion differs from a man's. When buying jeans made for the opposite sex, try them on before purchasing.

Care

Most jeans have a sewn-in label. Read it and follow the directions. Jeans are usually machine washed in warm water. Wash dark-colored jeans with your other dark clothes. Reds should be washed separately; pastel and white jeans should be put in with the regular wash.

Color from jeans may rub off onto other fabrics, especially when they're new. Check this carefully to protect your upholstered furniture and remember to launder them separately to protect other clothing items from being discolored.

Wash jeans that are made-to-fade separately. They hotter the water, the faster they fade. Don't use bleach in most cases unless you really want them bleached. Tumble dry and remove jeans from the dryer promptly. Over drying or drying in an overly hot dryer may cause excessive shrinkage even in jeans that should not shrink more than 1 percent.

All-cotton jeans in heavyweight fabrics and dark colors do not show wrinkles easily. If you do iron jeans, use a **steam** iron.

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