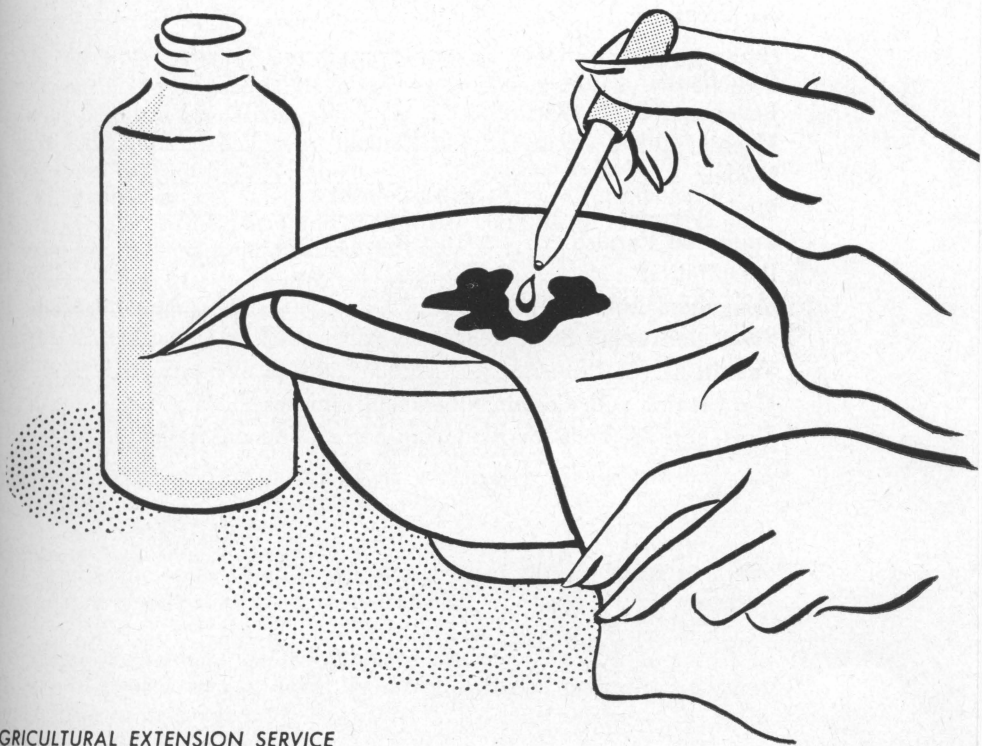


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MP-168

# Removing Stains from Clothing



TEXAS AGRICULTURAL EXTENSION SERVICE

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# Removing Stains *from* Clothing

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**I**T IS IMPORTANT that clothing be given the best possible care. Often an ugly stain will shorten the life of a garment and spoil its attractiveness. Frequently these stains can be removed easily without much trouble or expense.

## *Follow These Tips on Stain Removal*

Always treat a stain promptly, before it dries if possible. Old stains which have been set by improper treatment usually are hard to remove. Study your fabric. Find out if it's colorfast, if it's washable, if it will shrink, or if it is a synthetic fiber. When you buy clothing or fabrics, read the labels for information as to color fastness, shrinkage and kind of fibers and finishes in the fabric. To test for color fastness, take a sample of the fabric and soak a few minutes in lukewarm suds. If water becomes colored, the color will fade.

Before using anything else, try the simplest remedy of all—cold water. It does not harm the fabric and will not set the stain. Any water spot remaining is easily steamed out.

Work carefully and quickly. Never rub a stain, but use light, brushing movements. Try simple methods first. Use removers sparingly. Several brief applications of a remover are better than one long one.

Drying the spots rapidly will help prevent rings. Rinse well, and never let a chemical dry on the fabric.

*Classify the stain before applying the remover.* Most stains can be classified as: grease, sugar or syrup, coloring matter, or resinous or gummy substances.

*Next, classify the fabric.* Textile fibers are divided into three classes: animal fibers such as wool and silk; vegetable fibers such as cotton and linen; synthetic fibers such as rayon, acetate and nylon. These groups react differently to heat, sunlight, moisture and different cleaning agents. For information on how these fibers react to certain chemicals, see the chart on page 12. After the fabric and the stain have been classified, apply the proper stain remover.

## *Select the Proper Stain Remover*

Stain removers may be classified as absorbents, bleaches and solvents. Well-known absorbents are cornstarch, French chalk, Fuller's earth, cornmeal, magnesium, talcum powder and various commercial products.

Bleaches include borax, ammonia, Javelle water, potassium permanganate, lemon juice, hydrogen peroxide, sodium perborate and oxalic acid.

Solvents used in removing stains are denatured alcohol, chloroform, carbon tetrachloride, turpentine, kerosene, glycerin, lard, vaseline and other commercial products. Such solvents as gasoline, benzene and naphtha are flammable and must be used with care.

Pepsin is a stain softener available at drugstores. It softens stains containing albumin (found in blood, gelatin, glues, certain medicines, eggs, milk and ice cream) so that they wash out easily. Pepsin will soften these stains even after they have been set by alcohol or heat. In using pepsin, be sure there is no soap or alkali on the stain or the operation will not be successful. Moisten the stain with lukewarm water and sprinkle pepsin over it. Let this stand  $\frac{1}{2}$  hour. Keep the stain moist. Or mix 2 teaspoons of pepsin to 1 pint of water and sponge with this solution; then rinse well.

## *Apply a Remover This Way*

Use a medicine dropper when applying a chemical. For example, potassium permanganate and oxalic acid are excellent for stubborn stains. Place the stained fabric over a bowl and pour water through the spot. Take the medicine dropper and apply potassium permanganate to the stain. This will cause a purple stain. Pour water through this, and a brown stain may remain. Then, with a medicine dropper, apply oxalic acid, which will remove the brown stain. Pour water through and repeat the process until all the stain is removed. Wash thoroughly, and be sure all traces of the potassium permanganate and oxalic acid are removed.

Never use a chemical on colors until you have tested a sample of the fabric to see whether the chemical will remove the color. Fabric in the hem or seam can be tested if no sample is available. For more information on the effects of chemicals on dyes see the chart on page 12.

Sometimes it is better to use a weaker solution of the chemicals and work longer on the stain. In this way less color is removed. For example, in removing stains on wool or silk (either white or colored), sponge with cold water; then work glycerin into the stain and let stand several hours; then apply a few drops of vinegar or oxalic acid for 1 or 2 minutes and rinse well in water. Do not use soap on stains as it sets them.

For certain kinds of obstinate spots, such as coffee and chocolate, nothing is better than glycerin, especially on delicate colors and fabrics. Apply glycerin to the spot, let it stand a minute or two, then wash with water or alcohol. Hot glycerin reacts better than cold.



Place a heavy absorbent cloth beneath the stain with the right side of the stain down. Sponge with a soft cloth or pad, moisten lightly with the cleaning solvent, and with light brushing motions work from the outside of the stain to the center. Continue until there is no solvent left in the fabric.

## *Use Caution with Certain Fibers and Finishes*

Fabrics made from synthetic fibers, blends and those of unusual finish react differently to various spot-removing preparations. A careful test should be made before any attempt to remove the stain.

Never use strong acids or alkalis on synthetic fabrics, for they injure them. Mild acids or alkalis usually do no harm if properly rinsed. Sodium perborate and hydrogen peroxide are the safest bleaches to use. Rayon is weakest when wet; never pull, twist or wring it when damp.

There are three kinds of rayon — viscose, cuprammonium and acetate. According to a recent law, viscose and cuprammonium are labeled as "rayon," and acetate as "acetate." In removing stains from fabrics labeled "rayon," treat them as you would cotton or linen. Acetate will dissolve in acetone, alcohol or chloroform. Mixtures of alcohol and ether, or alcohol and benzene, are also unsafe to use on acetate or colored fabrics. Test before removing the stain.

Nylon is not harmed by acids or alkalies, and water does not weaken it. As it takes up little moisture, such stains as coffee, tea and fruit juice remain on the surface and wash off easily. Bleaches may be used safely on nylon.

## Use These Methods for Removing Some Common Stains

### BLOOD

First try cold or lukewarm water; *never* hot water, as it sets the stain. Cottons and linens may be soaked in strong salt water (2 cups of salt and 1 gallon of water). Either method is good to loosen the stain. For wool or silk, sponge first with lukewarm water, then with hydrogen peroxide made alkaline by adding a few drops of ammonia (10 percent solution of ammonium). Or sponge with a mixture of 1 teaspoon of sodium perborate to 1 pint of hydrogen peroxide. Mix thoroughly. These bleaches will not harm the cloth, but test for color fastness before using them.



### EGG

Scrape off as much as possible, then sponge with cold water. Never use hot water, as it makes egg stains harder to remove.

If any stains remain, cover stain with pepsin, let stand  $\frac{1}{2}$  hour, and rinse in cold water. For nonwashable materials, sponge with cold water; let dry, then sponge with carbon tetrachloride or other grease solvent.

### FRUITS AND BERRIES

Treat fruit and berry stains immediately. They are hard to remove after they dry. Boiling water (if it does not harm the cloth) or sometimes even warm water will remove most fruit stains. It is better not to use soap, as alkalies set some fruit and berry stains.

Citrus fruit stains, such as grapefruit and lemon, usually can be removed by washing in warm soapy water. If the stain is old or the cloth has been pressed before washing, use a bleach. If the acid in citrus fruit changes the color of the cloth, restore it with ammonia water or baking soda.





Use cold water and glycerin for fresh peach, pear, cherry and plum stains on cotton and linen, and for any fruit stain on wool or silk fabrics (either white or colored).

First sponge the stain well with cool water, then work glycerin into the stain, rubbing lightly between the hands. Do not use soap, as soap sets the stain. Let stand several hours, then apply a few drops of vinegar or oxalic acid; allow to remain for a minute or two, then rinse thoroughly in water.

Boiling water removes from cotton and linen most fruit stains except peach, pear, plum and cherry. Never use boiling water on silk or wool. Stretch the stained part over a bowl and fasten it with string. Pour boiling water through the stain from a teakettle held at a height of 3 or 4 feet so that the water strikes the stain with a force. Rubbing alternated with boiling water is also helpful. If a stain remains, squeeze a little lemon juice on it and place in the sun to dry; or sponge with hydrogen peroxide-sodium perborate mixture (1 teaspoon perborate to 1 pint peroxide). Rinse thoroughly. If the stain persists, sprinkle powdered sodium perborate on the dampened area and let stand for half an hour. Rinse well.



## GREASE

A grease stain may be removed by either a solvent or an absorbent. If the fabric is washable, use soap and water. If not, use a solvent or a good commercial cleaner. An absorbent may be spread on the spot and allowed to remain a few hours, then brushed off. A grease spot on a silk dress often may be removed by applying Fuller's earth and letting it remain overnight. Next morning, brush it off. Repeat the process if necessary.

For automobile grease, axle grease or tar, use kerosene and then wash in soap and water. Vaseline stains should be sponged with kerosene before they are washed.

Coloring-matter stains may require a bleach. For resinous or gummy substances, use a solvent such as turpentine or alcohol.

## ICE CREAM

Ice cream leaves a sugar spot with protein in it which may be removed with cool water. For any remaining color caused by fruit or

berries, treat the spot as for any fruit stain. Then wash in warm soapsuds.

If fabrics are not washable, sponge with carbon tetrachloride to remove the grease. Let them dry, and then sponge with cold water to remove any stain from the sugar and egg in the ice cream.

If stain is not completely removed, sponge with cold water, then sprinkle pepsin on dampened stain; let stand  $\frac{1}{2}$  hour, then brush off and rinse well.

## INK

Several methods are practical for removing ink stains.

1. Let water run through the spot before it dries.
2. Equal parts of glycerin and water should be used as long as they can cause ink to bleed.
3. Oxalic acid and potassium permanganate may be applied as previously described, on white materials only.
4. For printers' ink, rub the stain with lard or white vaseline and work into stain; if material is washable, wash; if not, sponge with carbon tetrachloride or other grease solvent.
5. Soak the stain in turpentine a few minutes, then sponge with carbon tetrachloride or other dry-cleaning fluid.

## IRON RUST

To remove iron rust from white fabrics, spread the fabric over a pan of boiling water and then squeeze lemon juice on the stain. After a few minutes, rinse, then repeat the process. This method is slow, but does not harm delicate white cottons or linens. Another method is to sprinkle the stain with salt, squeeze lemon juice on it, and spread in the sun to dry. Add more lemon juice if the stain still shows. Rinse well.

To remove more difficult stains, spread the stained article over a bowl of hot water and apply a few drops of oxalic acid solution (3 tablespoons of the crystals to 1 pint of water). Or put the crystals of acid directly on the stain and moisten with hot water. Rinse in hot water and repeat until the stain disappears. Do not use on weighted silk.

Test remover on sample of cloth before using on colored fabrics.



## FINGERNAIL POLISH

Acetone or nail polish remover can be used to remove fingernail polish from any fabric except acetate or vinyon. Sponge the material with acetone or nail polish remover.

For acetate or vinyon, use a grease solvent and banana oil (Amyl acetate). First wet the stain with gasoline or carbon tetrachloride, then apply a drop of banana oil to the stain. Use a soft cloth and brush lightly, using an upward stroke in order to pick up the dissolved polish.

If any color remains, apply a bleach; but first test fabric for color fastness. Sponge with clear water, then with hydrogen peroxide and sodium perborate, using a solution of 1 teaspoon sodium perborate to 1 pint of hydrogen peroxide.

If stain still remains, put powdered sodium perborate on it. Let stand  $\frac{1}{2}$  hour, then rinse well with clear water.

Oxalic acid and potassium permanganate may be used as directed on page 4 for white fabrics.



## LETTERING FROM SACKS

To remove lettering, designs and coloring on flour, feed and other sacks, kerosene is one of the best and cheapest materials. Wet the print or coloring thoroughly with kerosene. Roll the sack tightly and let it stand for 24 hours. Then soak in cold water, and rub until the design is removed. After this treatment, wash in a strong soap solution or boil in a lye solution using  $\frac{1}{2}$  to 1 teaspoon of lye to each gallon of water. (A small plumber's helper is good to use for removing ink from sacks. It will save your hands.)

## MACHINE OIL

Use carbon tetrachloride or other grease solvents to remove machine oil. Wash in warm soapy water.

## MILDEW

Mildew spots must be treated when fresh, before the mold growth has a chance to weaken the fabric.

On washable fabric, soap and water will remove very fresh stains. Drying in the sun helps to bleach the spots.



If soap and water do not remove the stain, use a bleach. Be sure to test for color fastness. Moisten the stain with lemon juice and salt, and place in the sun. This often removes slight stains.

## **MUD**

Let mud-stained garments dry, then brush well. Sponge with cold water or wash, if washable. Sponging with alcohol will help to remove last traces of the stain. Dilute the alcohol at the rate of 1 cup denatured alcohol to 2 cups water if used on colored fabrics or acetate.

## **PAINT AND VARNISH**

Remove paint and varnish from fabrics as quickly as possible. If the stains are fresh, apply turpentine, kerosene or gasoline, and wash. If the stains are dry, they may have to be softened with lard. Then use carbon tetrachloride or other grease solvents. Alcohol will remove stains of shellac or varnish, but never use it on acetate.

## **PERSPIRATION**

Perspiration stains normally are acid and usually will wash out of washable fabric, but sometimes the color of the fabric is changed. If so, dampen the stain with water and hold it over the fumes from an open bottle of ammonia. This may restore the color. Old stains may be alkaline. If so, sponge with vinegar.

Perspiration odors may be removed by sponging the stain with warm water to which a few drops of vinegar have been added. Then sprinkle with powdered pepsin, work well into stain, and let stand 1 or 2 hours, keeping the spot moist. Finally, brush powder off and rinse well.

For a stubborn stain, sponge with hydrogen peroxide or a mixture of 1 teaspoon sodium perborate to 1 pint peroxide. Rinse with water.

## **ROUGE AND LIPSTICK**

As a rule, rouge and lipstick will disappear with ordinary washing, but some are set by soap.

Sponge the spot with carbon tetrachloride. If it is a stubborn stain, rub in white vaseline or lard, then use carbon tetrachloride.

For unwashable fabrics use carbon tetrachloride.

## TANNIN

Tannin stains are among the most difficult to remove. They are almost colorless. If allowed to stand, or if washed in soap and water or heated as in ironing and pressing, they turn brown and are almost impossible to remove. These stains may be caused by common soft drinks, highballs, beer, coffee, tea, bananas, walnuts, pecans and mesquite.

To remove a fresh stain, sponge with clean water or with mixture of equal parts of water and alcohol. Then pour glycerin on the stain and work it in. Let stand for  $\frac{1}{2}$  hour, then rinse with water. Do not use alcohol on acetate.

Banana, walnut, pecan and mesquite stains may be removed with oxalic acid and potassium permanganate from white washable fabrics. (Follow directions on page 4.)



## *Chemicals May Harm Dyes and Fibers*

CHEMICAL	EFFECT ON FIBER	EFFECT ON DYES
Alcohol (flammable)	Acetate may dissolve	May fade dyes
Amyl acetate (banana oil)	If not pure, may injure acetate	Takes out some dyes
Gasoline, naphtha (highly flammable)	None	Takes out some dyes
Borax	None	Takes out some dyes
Carbon tetrachloride (can be used on all materials)	None	Practically none
Chloroform	Dissolves acetate	Fades some dyes
Glycerin	None	None
Javelle water	Dissolves animal fibers	Bleaches
Kerosene	None	None
Oxalic acid	Injures fibers if allowed to dry on them	Bleaches
Potassium permanganate	Injures fibers if not rinsed out	Bleaches
Lemon juice	Injures fibers if not rinsed out	May fade some colors
Turpentine	None	May fade some dyes
Vinegar (contains 5% acetic acid)	None	Takes out some colors
Hydrogen peroxide and sodium perborate (can be used on all materials and are the safest to use)	None	Takes out some colors
Pepsin—stain softener	None	None