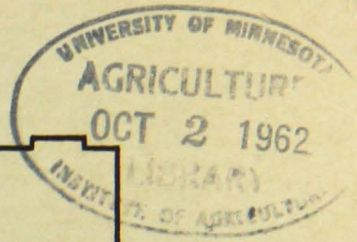


Misc. ③
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Top Stories in **HOME ECONOMICS**

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- **Research**
- **Recommended Practices in Homemaking**

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INSTITUTE OF AGRICULTURE

UNIVERSITY OF MINNESOTA

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The Institute of Agriculture issues many printed reports and bulletins recording the results of its research and providing information on new developments and recommended practices in homemaking. These appear as Extension Service bulletins, folders, or fact sheets; as Experiment Station bulletins; as articles in Minnesota Farm and Home Science and in several other forms.

In addition, the Institute also sends news releases to newspapers, radio stations, trade and farm papers, women's magazines and other outlets. These releases contain valuable information that could be used in the educational programs carried on by county extension agents, high school teachers and others.

This publication has brought together some of the more important of these releases. Through this publication the Institute hopes to improve its informational service and to extend the reporting of the results of its research.

Clothing

MANY POINTS TO CONSIDER IN BUYING A COAT

One in every five women will probably be looking for a new winter coat this year.

If you're among the four who will not be in the market for a new coat, have your last year's coat cleaned, see that it is repaired and make it a fashionable, becoming length. Athelene Scheid, extension clothing specialist at the University of Minnesota, says one way to subtract a year or two from the age of a coat you plan to wear another season is to adjust the hemline to current length. Make the coat about half an inch longer than your dresses.

If you want to be satisfied with your coat purchase, remember there are three you's to consider:

1. The personal you. Choose what is becoming to you and appropriate for your activities.
2. The fashionable you. Satisfy the degree of fashion you wish to express.
3. The practical you. Select a coat that will fit your budget and the amount of durability you desire.

WOOL BLANKETS GIVE MOST WARMTH AFTER LAUNDERING

Blankets of all wool or of 100 percent Acrilan acrylic or Orlon acrylic are more satisfactory after laundering than fiber blends.

All-wool blankets also retain the most resilience and can be expected to have the best warmth quality after laundering.

These are some findings of a study conducted by home economists at the University of Minnesota and the South Dakota State College Agricultural Experiment Stations. Suzanne Davison, professor of home economics, was in charge of the experimental work at the University of Minnesota.

Blankets used in the experiments were of 100 percent wool and 100 percent acrylics (Acrilan and Orlon) and blends of wool and Acrilan, rayon and Orlon, rayon and Acrilan and rayon and nylon. The home economists chose four brands from each fiber group at two different price levels.

The blankets were laundered 10 times in lukewarm water in automatic agitator-type washers--half of them in an older model with the agitator removed, the other half in a new machine using the setting specified by the manufacturer for blankets. The two methods of laundering did not differ in their effect on the physical properties of the blankets.

The 100 percent acrylic (Acrilan and Orlon) blankets did not shrink, while wool shrank with progressive washings. Shrinkage in washing was the main limitation found for wool as a fiber for blankets. Since the study was begun, however, wool blankets commercially treated against shrinkage during laundering have become available.

After 10 launderings, wool was the only fiber group that increased in thickness. The all-wool blankets were also the most resilient of all the blanket types. The quality of resilience helps retain the fluffiness of the blanket. Since all-wool retained its resilience and thickness better than the other fibers after laundering, it ranked highest in warmth qualities, followed in order by Acrilan and Orlon.

Rayon blends were soft and fluffy when new but reacted poorly to laundering. The blankets containing rayon were much less expensive than blankets of the other fibers.

Within all fiber groups, differences attributed to price level were not significant.

BEGINNING SEWERS GIVEN TIPS ON FABRIC SELECTION

As you learn to sew, you should also learn the importance of selecting your fabric carefully.

First, check grainline in all the fabric you buy, suggests Athelene Scheid, extension clothing specialist at the University of Minnesota. Look at a piece of cloth. Some threads go up and down the length of the material. These are called lengthwise threads or grain. Others go across the cloth and are called filling threads or crosswise grain.

When lengthwise and crosswise threads are woven together they should cross each other at right angles. Such fabrics are on grain. However, if the threads slant or curve across one another, the fabric is off grain.

If the material needs to be straightened, smooth it out on a table, find a diagonal line across the goods where there is the most stretch and pull. If the grainline is not straight and you do not adjust it, the garment you make will not fit correctly.

When you shop, examine the torn edges of folded fabric to see if the ends are even. Remember, you will have to straighten every uneven piece of material. If you buy a print fabric, be sure that the design is straight along the torn edge. If the design is crooked, you may not want to purchase the fabric.

The tightly woven threads along the sides of the fabric are called selvage. This means self-edge. The selvage is always the lengthwise edge of the cloth.

Make sure the material you buy is colorfast and will not shrink more than one percent. The label on fabrics will tell you other things you should know, such as fiber content.

GOOD HABITS CAN IMPROVE SEWING

As you learn to sew, learn to practice good sewing habits.

Athelene Scheid, extension clothing specialist at the University of Minnesota, gives the following tips to girls learning to sew:

* As you buy fabric, train your eye and learn to see grainline--that is, the lengthwise and crosswise threads. Grainline is important because everything done in sewing such as stay-stitching, pressing and stitching is done with grainline.

* For convenience, keep your sewing tools together in a basket or box. Remember to be a good housekeeper and pick up your things after each time you sew.

* When pinning fabric, have only 1/4 inch of material between the place where the pin goes in and comes out. By doing so, you will make better use of each pin and thus use fewer pins.

* Learn to wear a wrist pincushion as you sew so your pins will always be handy.

* When using your sewing machine, always remember to stop stitching at the end of the cloth. You are not to run off. Before raising the presser foot, be sure that the take-up lever is as high as it will go, because only then is your last stitch complete.

* For more attractive garments, press carefully after each step is completed. You will soon find that your iron is almost as valuable a tool as your sewing machine.

TO CHOOSE CLOTHES, KNOW YOURSELF

Knowing yourself is the key to selecting an attractive, flattering spring wardrobe.

Athelene Scheid, extension clothing specialist at the University of Minnesota, gives some fashion tips to girls buying new spring clothes or planning to sew.

The first step in knowing yourself is to get a complete picture of your physical self. Take a good look at your figure. The best way to do this is to have snapshots taken of yourself in a one-piece suit--front, side and back views.

Use these pictures to decide which parts of your figure to emphasize and which to minimize. However, avoid over-emphasizing good features if by doing so you expose a poor feature. Don't wear a wide belt pulled tight to show a small waist but bulging hips. Remember, you are working for good body balance and proportion.

Line is also important near the face. To decide which neckline types are best for you, get to know the shape of your face. Pull your hair back to find if your face is oval, round, square or a triangle. If you wish to emphasize the shape of your face repeat that shape or use one that is completely different at the neckline. For example, the diagonal lines of a V neckline will add length to a round face and make it appear more oval.

Learn the importance of using dress and necklines to help others see only what you would like them to see.

CLOTHING PRICES MAY BE UP--BUT ONLY SLIGHTLY

Clothing may cost you a little more in 1962 than it did in 1961.

But good news to the consumer should be the fact that prices of clothing of comparable quality have risen only slightly since 1947-49--far less than for other commodity groups.

Retail prices of clothing have increased less than have prices for housing, food, recreation, reading, transportation, medical care, personal care and other goods and services. Shoes have risen in price far more than any other single article of clothing.

Keen competition among the thousands of individual firms in the clothing industry and the battle of the fibers--natural fibers such as cotton and wool versus man-made fibers like nylon and rayon--have kept prices of clothing and textiles down.

Price increases in clothing that may occur this year will be due to a number of forces tending to push up manufacturers' costs. Among these forces are the increase in prices of raw products including cotton and the boosting of the minimum wage of workers as well as the wages of skilled workers.

Restraining influences which will temper the price rise will be both domestic and foreign competition. A threat to domestic textile producers will be strong price competition of imports coming from low-wage countries abroad.

POPULARITY OF CASUAL CLOTHES CONTINUES

The casual look will continue to dominate fashion in women's and men's clothing.

Population changes in the 1960-70 decade will have a real impact on the demand for leisure apparel. A large part of the growth in total population will be of the young and old, both of whom use leisure wear extensively.

A cultural upsurge in tastes, however, will be apparent in studiously casual attire and in simple but elegant dressup clothes, according to Athelene Scheid, extension clothing specialist at the University of Minnesota.

More leisure time and more informal living have brought new demands for sportswear for men as well as for women.

Casual clothing is being worn not only in the home but often on the job. Work clothing for men is better styled and more colorful. Output of men's and boys' sports shirts more than tripled between 1946 and 1959, replacing work shirts to a great extent. Work pants, styled like sports slacks, are taking over for dungarees and overalls.

Changes in fabrics used reflect the influence of demand for leisure-time clothing. Cotton is still the dominant fiber, with twills

for work clothing replacing denim overalls and chambray shirts. Other fabrics used include shirtings, sateens, poplins, corduroy and bed-ford cord. Wash-and-wear fiber is making an inroad for leisure clothing.

NEW TEXTILES FOR CONSUMERS

1962 will be a year for many novel developments in textiles.

Consumers can look for wash-and-wear woollens, permanent creases in wool trousers and permanent pleats in wool skirts, cotton stretch fabrics, as well as improvements in the wash-and-wear fabrics that have been on the market.

More work in developing and testing textiles is going on than most consumers realize. Companies operate their own laboratories to develop and test products. The U. S. Department of Agriculture is also doing textile research.

One of the most significant new processes for wash and wear is a nonresinous finish obtained by a chemical reaction with cotton fibers, according to extension clothing specialists at the University of Minnesota. This finish should last the life of the garment in contrast to the older resin finishes which not only wear off in washing but also often turn yellow when a chlorine bleach is used. The new nonresinous finish (such as Bancare, Belfast or Ganalok) is being used for men's shirts, women's blouses and shirt waist dresses.

Wash-and-wear wool and permanent pleating in wool are other new developments that have been made possible by USDA research. Department of Agriculture scientists have discovered ways to shrinkproof wool fabrics so they can go through machine washing, yet keep their original measurement. They also dry without wrinkling. USDA researchers have also discovered a method of putting into wool fabrics permanent pleats and creases that will stay through wear, rain and machine laundering.

Nylon is no longer the only stretch fabric. Stretch cottons are now on the market. Stretch wool suits will be tested this fall.

A new synthetic to replace shoe leather is in the experimental stage.

Swim suits made of a stretch lace that has been laminated will add glamor to the beach.

Another new development is molded nylon used for brassieres. The molded nylon is soft, pliable and machine washable with a stretch that will last the life the garment.

CLOTHING BUYERS ARE INCONSISTENT

As clothing buyers, today's consumers are inconsistent.

On the one hand, they're willing to pay a premium for high quality and expect to get value for the price they pay. On the other hand, when it comes to shopping for the latest styles, they're satisfied with less durable garments and lower quality, according to extension clothing specialists at the University of Minnesota. The tendency to compromise on quality in fashionable garments indicates their desire for new styles and their realization that clothes may be out of date before they wear out.

Consumer demand for good quality shows up in a number of ways. It accounts for the acceptance of man-made fibers because of such characteristics as easy-care, even though price tags on these fibers may be higher than on some of the natural fibers. The desire for quality also explains the importance attached to brand names and labels and to finishes which convey to consumers a guarantee of superiority.

Modern consumers are better informed about quality than they used to be. They also recognize when an increase in price means an upgrading of the item.

But the opposite consumer attitude toward prices is apparent in their interest in non-nationally advertised brands of some articles, which sell at lower prices than nationally advertised brands and are available in supermarkets, drug chains and from discount retailers.

CAREFUL STORAGE WILL KEEP WINTER CLOTHES NICE

Spring is the time to put away wool clothes and bring out the summer cottons you're anxious to wear again.

To be sure that your wool clothes will be in good condition when you want them in the fall, store them carefully, suggests Thelma Baierl, extension clothing specialist at the University of Minnesota.

Put all clothes away after they've been cleaned and aired. Use a moth preventive such as a spray or moth crystals and put garments in sealed containers.

A mothproof garment bag is good for storing dresses because they can be hung free of wrinkles. Dresses will keep their shape in storage if you hang them on well-shaped wooden hangers and close zippers and buttons. Leave enough space between garments to let air circulate and to guard against folds and creases.

Garments packed in boxes should be cushioned with tissue paper to reduce wrinkles.

Sealed plastic bags will help protect sweaters over the summer months.

Winter hats should be stored in sealed boxes to keep them free from dust and from light that will fade them. Put crushed tissue paper in hats to preserve shape.

Before packing garments, check for small tears that need mending and sew on missing buttons.

Storage boxes and bags should be kept in a dry place at a moderate temperature. Often

the attic is too hot over the summer and the basement is too damp. If dampness is a problem, pay special attention to storing shoes, purses and belts because leather will mildew. Put these items in boxes on a shelf.

For convenience, label storage boxes. Then you'll be able to find garments you may want to wear early in the fall.

NEW SWEATER FIBERS MEAN NEW DIRECTIONS

Do you sometimes read directions and then completely ignore them because you can't see any reason for not doing something the same old way?

Athelene Scheid, extension specialist in clothing at the University of Minnesota, suggests that if you know the reason behind the directions for caring for clothing, you will follow them with improved results.

A case in point is "Orlon Sayelle" sweaters. Miss Scheid emphasizes the importance of following directions for sweater care because of the variety of fibers. A new acrylic fiber, put on the market in 1960 under the trademark of "Orlon Sayelle," adds a new dimension in sweaters and a new dimension in caring for them.

Each individual fiber of "Orlon Sayelle" is made up of two longitudinal parts which react differently to heat and moisture. When heated, one segment shrinks more than the other, forcing it into a spiral contour. When wet, the shrunk side elongates, straightening out the spiral. But upon drying, it returns to this corkscrew shape which makes "Orlon Sayelle" the fiber with the permanent reversible corkscrew crimp.

This fiber structure makes it possible to wash sweaters of "Orlon Sayelle" by hand or machine and to tumble dry them in a home drier or place them on a flat surface and gently bunch them into shape. Because of the stretching and shrinking action of the fiber, an "Orlon Sayelle" sweater should not be hung up to dry. Let it dry flat or tumble dry so crimping can recur.

The corkscrew crimp of the fibers will neither pull out nor wear out. Each time you wash and dry your sweater, the crimp will be reactivated. This action makes the size and shape of your sweater permanent.

"Orlon Sayelle" is not confined to sweaters. Sweater shirts and knit sport shirts for men and boys, suits and dresses for women and girls and handknitting yarns are made from this acrylic fiber.

HOW WELL DO BOYS' CLOTHES LAST?

T-shirts that shrink so much when they're washed they can't be worn again, jeans that are marked "sanforized" but still shrink more than

1 percent, sports shirts that lose their bright color--these are common problems of homemakers who have young boys in the family.

To find out just how serviceable boy's t-shirts, sports shirts and jeans really are--and to give mothers some idea what to look for in buying these garments, clothing specialists at Agricultural Experiment Stations in the North Central States tested a group of size 12 garments. The clothes were worn by fourth and fifth grade boys and were washed after each wearing for 10, 20, 30, and 40 times.

Studies of blue jeans were made at the Minnesota and South Dakota Experiment Stations.

Here's what the tests showed:

Cotton shirts undergo their biggest change at the time of the first laundering. Those in the test shrank lengthwise--sometimes so much they no longer fit the boys. And this shrinkage continued to some degree through 10 washings. After that, if the shirt still fit, there was no further problem.

It didn't seem to matter how the t-shirts were washed. They still shrank.

Cotton-Orlon sports shirts, although marked machine-washable, were not colorfast at 120° F. Nor did cotton-Orlon shirts offer greater resistance to strain at the shoulders--something most mothers expect of Orlon-reinforced shirts.

The chief trouble with the t-shirts tested was their neckbands. They weren't large enough. So, naturally, many of the boys ripped them out getting the shirts off and on.

Gingham and flannel shirts also were tested. The gingham shirts defied shrinkage and held their color after repeated washings. The gingham shirts had a special finish that made them easier to take care of but weakened them so that even during the first 10 wearings, the fabric at the elbows and cuffs grew thin. Many gingham shirts had to be converted to short sleeves so the study could continue.

But flannel shirts also had their disadvantages. They shrank considerably, often so much they could no longer be worn. They also faded more than gingham shirts, and they too had their structural weaknesses--pockets and buttonholes that tore and ripped and occasional ripped sleeves and yoke damage.

In the jeans department, the Minnesota and South Dakota study showed that 13 3/4-ounce jeans proved to be most durable. But whatever their weight, the jeans all shrank more than the 1 percent indicated on the label. They also faded at the knees and pockets.

DON'T LOSE BATTLE WITH CARPET BEETLES

Your husband's best winter suit, the children's sweaters or a favorite upholstered chair can provide good feasting for insect pests this summer--unless you take proper precautions.

Carpet beetles are the pests that are likely to riddle your woolen clothing with holes if you haven't taken some preventive measures when

putting them in storage. Carpet beetles may also feed on wool carpets and upholstered furniture.

John Lofgren, extension entomologist at the University of Minnesota, says carpet beetles and moths cause up to \$500 million worth of damage every year in this country. In Minnesota, however, carpet beetles are a far more common and troublesome pest than moths.

Carpet beetles are small, oval beetles about 1/4 inch long. But it is the larvae, not the adults, that are destructive. They do their damage as they feed on lint, on food stains and on animal fibers in carpeting, upholstery, other household furnishings or in clothing.

If you find brown, hairy larvae--or their shed skins--in stored woolens, in cracks and corners of closets, dresser drawers or even in stored food, it's a sign that carpet beetles are on your premises. Inspect the house thoroughly and remove the source of infestation if possible. The source may be as simple as a fleeced-lined boot in the attic, or lint in floor cracks. Clean the area thoroughly and spray with 2 to 3 percent chlordane or 1/2 percent dieldrin.

Taking some protective measures now against these pests will pay off in dollars and cents, Lofgren says. Key to prevention is good housekeeping. Regular, thorough cleaning of lint removes places where the insects get started. Pay particular attention to vacuuming carpets next to walls and under seldom-used furniture. Vacuum upholstered furniture, floor cracks, moldings and baseboards, closets, radiators and registers.

Dryclean or launder winter clothing before storing it. Carpet beetles are attracted to soil and food stains. The next step is to store clothing in a space that can be sealed tightly, using a moth preventive such as moth flakes. Lofgren recommends at least a pound of moth flakes between layers of clothing in a trunk-size container or 2 ounces for each cubic foot in a garment bag. As these chemicals evaporate, they produce a vapor that will kill both moths and carpet beetles if it is concentrated enough.

Another way to protect clothes--carpets, too--is to spray them with a 5 percent ready-to-use household grade solution containing 5 percent DDT, 2 to 3 percent chlordane, or 1/2 percent dieldrin. Be sure these are marked household sprays so they will not stain.

Detailed information on controlling carpet beetles is given in Entomology Fact Sheet No. 18, Carpet Beetles. Copies are available free of charge from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

HERE ARE POINTS TO CHECK ON MEN'S SUMMER SUITS

Cool comfort, wrinkle resistance, press retention and long wear are some of the characteristics the male shopper will find in men's summer suits this season, says Thelma Baierl, extension clothing specialist at the University of Minnesota.

Among most popular blends are 55 percent man-made polyester and 45 percent worsted wool. In some summer suitings 15 to 25 percent mohair is added to the polyester to give the effect of luster. These blends come in tropical and slub weaves, plain and shadow plaids, solids, stripes and muted patterns. The man-made fibers give strength, wrinkle resistance and press retention.

A wide selection of wash-wear suits is available in poplins, twills, hopsackings, cords and seersuckers in blends of 50 percent or more polyester man-made fiber with cotton or rayon.

For the man who is in the market for a washable summer suit, Miss Baierl gives these points to check before buying:

SUITING. The material should be a smooth weave that resists soil and is lightweight but not so thin it shows through. Pick a suiting that resists wrinkles, will not shrink or stretch, and is colorfast to light, perspiration and washing. A label or tag should provide facts about qualities you can't see.

CONSTRUCTION MATERIALS. Interfacings, pocketing, bindings, tapes should be lightweight but firm. Be sure trouser waistband interfacing is permanently firm and that none of the facings will shrink more than the suiting.

LINING. A skeleton lining and no lining in the sleeves make a summer suit cool to wear and easy to press.

WORKMANSHIP. The suit should be neatly finished both inside and out. Lines of construction should be thin, especially at edges and corners. The seams should be protected against fraying. Thick, lumpy construction slows drying and makes pressing difficult.

SELECT A FABRIC TO SUIT YOU AND YOUR PATTERN

Most important considerations in choosing a fabric for home sewing are that it is suitable to the pattern you have chosen and becoming to you, suggests Thelma Baierl, extension specialist in clothing at the University of Minnesota.

There is a fabric for every sewing purpose. Study your pattern carefully before you choose your fabric. Some materials are better for some designs than others. If your pattern has pleats, the material should have body and be fairly crisp. Loosely woven, soft fabrics will not retain pleats.

If the pattern you choose has fine details such as shirring, pin tucks or smocking, select fabrics that are soft and sheer. These soft, lightweight materials make up best in dressy designs. If your dress has a lowered neckline, bloused waistline and sash, the fabric should be soft and pliable so it drapes easily.

For the tailored look, select firm, crisp or bulky fabrics. Stripes, checks and plaids are best suited to tailored styles with straight lines. Cut them carefully so lines and colors match. The larger the plaid or stripes, the more material you will need.

A large floral print or a plaid made up in an intricate style loses the details of the styling

because of the interest of the surface. A plain, smooth-surface fabric will show up all the smart details of cut and construction.

The success of your new outfit begins in the store when you choose the right fabric for your pattern and for yourself.

SELECT STYLES TO FIT YOUR FIGURE TYPE

Use the lines of your costume to advantage in helping to create your "ideal figure."

Study every line of a pattern or dress in relation to your figure before you select it, suggests Thelma Baierl, extension specialist in clothing at the University of Minnesota.

The lines of your costume attract the eye because they produce movement. These lines cause the eye to move in different directions - vertical, horizontal and diagonal.

If you are taller than the average 5-foot, 6-inch figure, select horizontal lines to make

you look shorter. Unpressed pleats, tucks and other forms of fullness are good for the tall, slender girl.

The tall, heavier figure should avoid horizontal lines that accentuate the fullest part of the body. A jacket should not end at the widest part of the hips, but rather an inch or two below the waistline.

Slim jackets to match the dress are good choices for the short, thin person. They create a vertical effect because there are no broken lines. One-piece clothes help to make you look taller. You can adapt many of the suggestions for the tall, thin person if they don't have too many horizontal lines.

The short, heavier figure can wear much the same types of clothes as the tall, heavier person. Single-breasted lines are good, but avoid strapless dresses, overblouses and thick, bulky or shiny fabrics which increase the apparent size of the figure.

The average figure has a wide variety of choices. The classic shirtwaist with a skirt to suit your figure is universally becoming, as is a three-fourths sleeve length.

Consumer Marketing

GROCERY BILL INCLUDES MANY NON-FOOD ITEMS

The food bill and the grocery bill are two different things these days.

Consumers who talk about their big grocery bills should remember that these bills include many items other than food, Mrs. Eleanor Loomis, extension consumer marketing agent at the University of Minnesota, points out. The average family's actual food bill takes only about a fifth of the family's take-home pay, compared with a fourth shortly after the war.

Nearly 80 percent of shoppers in food stores put at least one non-food item in their baskets, according to a recent study. In a Midwestern area where the survey was made, an average of \$4.59 was spent for a so-called basket of groceries, which included two non-food and 10 food items. Yet the non-food supplies, along with the foods that are purchased, always go on the grocery bill.

Tobacco products lead the list of non-food items in dollar value. Soaps and detergents, health and beauty aids come next, followed closely by household care items and paper products. The paper products include napkins, tissues, paper plates and cups.

Men make more non-food purchases than women. If a man shops alone, one out of every five items he puts into his grocery cart will be something other than food.

Although men add the most extras to their food lists, they are not particularly big spenders. In the stores studied, a man shopping alone spent an average of \$3.09; his wife, also alone, bought \$4.21 worth of groceries. If they went together, they averaged \$8.77, but if they brought the children along, the bill ran to \$11.47.

GOOD FOOD SUPPLY IN PROSPECT

Big supplies and favorable prices give consumers promise that food will continue to be a bargain in 1962, according to Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota.

More meat, poultry, eggs and fruit than last year and plenty of canned and frozen vegetables are in prospect for this next year. Crop production for the year is about the same as last but livestock production is moving up the Economics Research Service of the U. S. Department of Agriculture reports.

At the meat counter, lower pork prices will help to drop the average price of all meats. Large supplies of chicken will be on the market, and the prices may be even lower than last year. Turkey should be a special bargain, since 25 percent more birds will be available. And there will be plenty of eggs at somewhat lower prices.

Dairy cases will be well filled with milk. Cheese, which has been an especially popular dairy item during 1961, will continue to be in plentiful supply in 1962.

The promise is of a moderately larger supply of fruit on fresh counters and canned goods shelves. Canned fruit especially abundant will be fruit cocktail, peaches, cherries and purple plums. More fruit juices--particularly orange juice--are also in prospect. Canned fruit will be priced about the same as last year, but prices of some fresh items will be down.

The supply of fresh vegetables may be smaller during the winter, but there'll be plenty of canned and frozen vegetables on the market. Potatoes are the exception among fresh vegetables. Fresh potatoes will be in large supply and lower priced.

So far this year, cash registers have been ringing up a 2 percent increase in retail food prices over last year. But lower pork, poultry and egg prices for the rest of the year probably will drop the total cost of food slightly during the next few months.

MANY NEW FOOD PRODUCTS IN YEARS AHEAD

New foods will be crowding grocers' shelves in the years ahead. Changes in food products will be both remarkable and rapid in the space age.

Sweet potato flakes, bean powder, vegetable chips and dried honey are among new products consumers may soon see on the market. The U. S. Department of Agriculture is continually doing research on development of new products as well as in time, energy and money saved in use of these products.

Greatest opportunities for new product development in foods lie in application of various dehydrating techniques to agricultural products, if fresh flavor quality, reasonable price and convenience can be combined. Among dehydration process in the developmental stage or in the early stages of commercialization are these:

Dehydrofreezing process. Fruits and vegetables are dried to about half their original weight and then frozen and held frozen. Savings come in freezing, packaging, storing and shipping costs. Dehydrofrozen foods are not yet in retail markets but vegetables for soup-making and apple slices for pie baking are among products available in institutional markets.

Vacuum puff-drying, essence-recovery dehydration and foam-mat drying. These are alternative methods of producing dried citrus, apple, grape and other fruit juices. Orange crystals and other dried citrus juices are on the market now.

Freeze-drying. Food under this process is dehydrated under vacuum while frozen. This process offers promise of being a really instant, easy-to-prepare process, producing foods of high, fresh-flavor quality. Properly sealed, these foods can be stored at room temperature for long periods of time. Although the main emphasis presently is on meat products, freeze-dried shrimp is available in the institutional market.

FARM PRODUCTS
CREATED TO FIT
CONSUMER DEMANDS

Bright red frozen strawberries with the flavor of fresh fruit, small, meaty turkeys to fit the average family, woolens that wash without shrinking--these are a few of the products agricultural technology has given the consumer in the last few years.

Farmers and agricultural research scientists are creating farm products for special purposes, to give consumers what they want, says H. J. Sloan, director of the University of Minnesota Agricultural Experiment Station.

Seven of every 10 crop varieties grown today were unknown 20 years ago, according to Sloan. Many were developed for a specific use --and with the consumer in mind. For example, the good taste and texture of the bread you eat are no accident. Good bread is baked from flour with special baking qualities. Agricultural scientists developed wheat yielding this kind of flour and farmers have been growing these varieties.

Market researchers learned the best qualities of potatoes for baking, French frying and mashing--and crop scientists developed varieties for these different uses.

Most frozen foods on the market are tailor-grown to serve consumer wants. Horticultural scientists in the U. S. Department of Agriculture and land-grant institutions such as the University of Minnesota are continually breeding new varieties of fruits and vegetables that will keep their garden-fresh flavor, color and texture during freezing. Thus consumer tastes for frozen strawberries with the same red color and good flavor of fresh fruit have led to the introduction of varieties with these qualities. Today about half the strawberry crop is frozen.

Another consumer demand has been for a small, meaty turkey to fit the oven and pocket-book of an average-size family. Agricultural researchers produced the Beltsville small white turkey. Now one of every five grown in the U. S. is a small Beltsville, Sloan says. Americans are eating turkey the year round and more than ever before.

The modern meat-type hog was developed to satisfy consumer desires for leaner pork with more protein and fewer calories.

Agricultural scientists are improving fibers as well as goods. Wash-and-wear cottons that eliminate much of the drudgery of ironing, stretch cottons, shrink-resistant and wrinkle-resistant woolens are only a few of the products designed with the consumer in mind.

Thanks to agricultural researchers, many more food and fiber products are on the way--all of them tailored to consumer needs.

You may be without a flesh-and-blood maid at home, but that doesn't mean you don't have the benefit of her help. Maid service is built into the many convenience foods on the shelves in your grocery store. These foods range from bakery bread, mixes of all kinds, canned and frozen fruits and vegetables to instant mashed potatoes and a complete frozen dinner ready to heat and serve.

American agriculture sees to it that you get the kind of food you want when you want it and in the most convenient form possible, says Mrs. Eleanor Loomis, extension consumer marketing specialist at the University of Minnesota.

Whether you prepare a complete meal from ready-to-serve foods or use some partially prepared foods, you're saving yourself time and effort. As a result you have more time to spend with your family, an extra hour or two to work on a civic project or to spend on a leisure-time hobby. And, best of all, your "built-in maid" will be costing you only about 45 cents an hour.

In a study conducted by the Bureau of Human Nutrition and Home Economics, homemakers prepared a day's meals for a family of four in about 1 1/2 hours at a cost of \$6.70 when they used ready-to-serve foods. When they used foods partially prepared in the kitchen, it took them 3 hours and the meals cost \$5.80. When homemakers did all possible work themselves--including making cake "from scratch"--it took them 5 1/2 hours and the food cost \$4.90. Thus for the 4 hours they saved with ready-to-serve meals or for the 2 hours they saved using partially prepared foods, the homemakers actually paid only 45 cents an hour for their "built-in maid."

Though you would expect to pay for transferring some work from the kitchen to the factory, often the additional cost for convenience foods is very small, Mrs. Loomis says. One study showed that 18 out of 52 selected convenience food items actually cost less than their unserved ingredients. Six items cost the same.

When a processor does the shopping for you on the farm at harvest time, you get some advantage of wholesale prices. And because much of the work is done near the place where the food is grown, you save shipping costs on waste parts. An example is frozen orange juice. The oranges are squeezed at a plant near the grove and the juice is shipped in concentrated form, saving enough to offset processing costs.

Convenience foods often save storage costs, too, both in the grocery store and in the kitchen.

Quality is another plus factor in convenience foods. Fresh fruits and vegetables, harvested in their prime, can be kept in nutritious, fresh conditions with new scientific techniques not available in the home kitchen.

TURKEY SURVEY SHOWS
YOU ATE 7 POUNDS
OF TURKEY

You ate slightly more than 7 pounds of turkey last year, if you're an average Minnesotan.

MAID SERVICE IS
BUILT INTO
CONVENIENCE FOODS

Did you ever stop to think of how much maid service you can buy at the grocery store?

And you ate most of this turkey for special holidays such as Thanksgiving, Christmas and New Year's and possibly for Easter.

These are some findings in a study made by University of Minnesota researchers in cooperation with the National Turkey Federation and the Minnesota Turkey Growers' Association.

About 200 families were surveyed in the Twin Cities area. The typical family in the survey was composed of husband, wife and two children, aged 6 and 10.

Only about 40 percent of the households in the survey have increased their consumption of turkey in the last five years. Their turkey buying habits had changed scarcely at all in that time.

Approximately 94 percent of the families served turkey one or more times during the year for an average of 31 pounds per family. Because about 6 percent of the families never served it, the average for all families dropped to 29 pounds. Per capita consumption came to slightly more than 7 pounds--close to the national average.

Turkey was most popular for festive occasions rather than for family meals. Nearly 92 percent of the families served it for one or more of the Thanksgiving, Christmas or New Year's holidays. Eighty-two percent of all households served turkey for Thanksgiving. But only 7 percent chose turkey for Easter. When it came to serving guests on occasions other than special holidays, it ranked fourth--behind beef, pork and chicken--for serving two to four guests, but third--ahead of chicken--for larger groups. Most families served chicken more often than turkey because they said it was easier to prepare, the family preferred it and there was no leftover problem.

CONSUMERS NOT ACQUAINTED WITH TURKEY AVAILABILITY

Consumers are not well enough acquainted with the year-round availability of turkey of different sizes and of turkey products.

That's one of the findings in a survey of 200 families by University of Minnesota researchers in cooperation with the National Turkey Federation and the Minnesota Turkey Growers' Association.

Less than half of the homemakers in the study had heard of turkey fryer-roasters, and less than a fourth of these had bought a turkey fryer-roaster. Many of the women who knew about fryer-roasters had not bought them because they thought they were not available.

Those who had bought fryer-roasters liked the ease of preparation, the small size and the fact that there were no leftovers. However, users of large turkeys mentioned the opportunity for leftovers as one of the advantages. Purchasers of fryer-roasters considered the small birds inferior to the large turkey in flavor, juiciness and tenderness.

As to other turkey products, turkey pies were popular with half of the families in the sur-

vey. But only 10 percent purchased stuffed turkey and less than 5 percent used specialty turkey meats.

Most consumers don't buy turkey on impulse; it's a purchase planned before buying. If it is bought on impulse, it's the price that's likely to sway consumers. When they make their purchases, consumers select individual birds on the basis of skin color, plumpness and weight of the turkey.

About a fifth of the families in the study had used turkey with missing parts or skin tears. They were satisfied with this grade of turkey, saying it was lower priced and not inferior in quality.

MANY BENEFITS TO CONSUMERS FROM AG RESEARCH

Wash-and-wear clothing that has lightened laundry chores, washable woollens, frozen orange juice, the family size Beltsville turkey--these are a few of the many benefits consumers owe to research by the U. S. Department of Agriculture and land-grant colleges such as the University of Minnesota.

This month marks the beginning of a year-long observance of the U. S. Department of Agriculture's 100th anniversary.

The wash-and-wear cottons Americans now take for granted were developed through USDA research. So were the stretchable cottons, produced by a chemical treatment that crimps the yarns so they can be pulled easily, yet snap back when tension is relaxed. Thanks to Department of Agriculture scientists, men's cotton wash-and-wear shirts should soon have longer-lasting collars and cuffs.

Researchers in USDA have discovered ways to shrinkproof wool fabrics so they can be washed safely. The treated garments go through machine washing, yet keep their dimensions, colors, softness and resilience. The shrinkproof treatments can be combined with the USDA-discovered method of putting permanent pleats and creases in wool fabrics.

Frozen orange juice owes its existence to scientific investigation done in the U. S. Department of Agriculture. In 1944 scientists in the Agricultural Research Service worked with Florida citrus growers on the basic process for freezing concentrated fresh orange juice in small, convenient cans.

A service that protects everyone is the Department's inspection for wholesomeness of all meats and poultry products in interstate commerce. And of special help to shoppers is the system of grades and standards developed for beef, butter and eggs.

Improvement in American diets has come as a result of information provided by research in the Department on the food needs of different age groups.

Agricultural scientists have also given us the aerosol can, now used for everything from shaving cream to whipping cream.

Equipment

MORE WALL SPACE FOR BUILT-IN DISHWASHER

How much space will a built-in dishwasher take away from storage or counter areas in a new kitchen or an old kitchen that is being re-modeled?

The answer will vary according to the kitchen. Building in a dishwasher requires extra wall length or cuts down on cabinet space by different amounts in different kitchens, according to some findings in a study directed by Florence Ehrenkranz, professor of home economics at the University of Minnesota.

In an L kitchen the amount of storage space lost or the additional amount of wall length necessary for the installation of a dishwasher varied with the type of cooking equipment. In the arrangements tested, whether a dishwasher was used or not, 30 inches of base cabinet for storage and 33 inches of wall and midway cabinets at the left of the sink were necessary for convenience in an L kitchen with free-standing range.

Putting in a dishwasher in this type kitchen (L kitchen with free-standing range) does not affect the base and wall cabinet needs but gives 24 inches more counter since the top of the dishwasher is used as counter. At the same time, needed amount of wall in the kitchen is increased by 21 inches.

A kitchen with built-in cook top, a 24-inch electronic oven and a conventional oven assembly required 9 inches more wall length, had 12 inches more counter space but lost 12 inches of base cabinet storage with a dishwasher.

The L kitchen with double oven and built-in cook top lost the most base storage cabinet to the dishwasher--18 inches--enough to increase appreciably the number of awkward reaches during meal preparation, serving and cleanup, according to Miss Ehrenkranz. Three inches of extra wall length were necessary.

In corridor kitchens designed for comparable convenience as measured by the number of awkward reaches, no additional wall length was necessary when a dishwasher was installed, unless it was placed in the mix area. If the dishwasher was in the mix center, an addition of 12 inches of counter and base storage cabinet--and hence wall length--was necessary to avoid an increase in awkward reaches during meal preparation, serving and cleanup.

MORE LIGHTWEIGHT EQUIPMENT FORSEEN

The space program is extending its influence to the household in a trend toward more lightweight equipment.

Watch for lighter weight ranges, refrigerators and water heaters as new models appear on the market. Women who enjoy changing the arrangement of furniture may soon be able to shift kitchen equipment around, too.

Among other trends and changes in household equipment, Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota, suggests that consumers look for:

- . Appliances that hang on the wall. Built-in appliances may be on the way out.

- . Ranges with more emphasis on keeping heat out of the kitchen.

- . All burners thermostatically controlled on ranges.

- . Better insulation in electrical equipment.

- . Better service from electrical equipment because of more efficient motors.

- . More clothes dryers which shut off when clothes have reached just the right dampness for ironing.

- . Equipment made in detachable pieces for easy cleaning.

Prices of appliances in 1962 may be slightly higher than they were in 1961. Appliance prices have declined steadily since mid-1951 and are now about 2 percent lower than they were in September, 1960. However, several large manufacturers have announced that distributor prices for appliances will increase in the year ahead because of rising costs of materials and labor.

LIFE EXPECTANCY OF RANGE, REFRIGERATOR 16 YEARS

How long can families expect their major appliances to last?

Sixteen years is the average length of time families buying new refrigerators, electric or gas ranges can expect to keep these household appliances. But families who buy used refrigerators or ranges keep them about half as long--a used electric refrigerator or range eight years, a used gas range nine years.

Electric sewing machines have the longest service-life expectancy of any of the appliances--24 years for a new one, 16 years for one bought second-hand. A used treadle machine is kept on the average of 13 years.

A new automatic toaster also has a long service life--15 years. A non-automatic toaster, however, is kept an average of only seven years.

New television sets are kept an average of 11 years; used sets, six years.

City families use their refrigerators and television sets a year longer than rural families, but their electric ranges a year less.

Families can expect nine years of service from washing machines of all types.

These estimates are from studies conducted by the Household Economics Research Division, U. S. Department of Agriculture, to give families planning their budgets an idea of the number of years of service to expect from major home appliances.

Though the studies show how long, on the average, homemakers keep their appliances, the figures do not actually indicate how long these appliances could have been made to last. The appeal of new models and other factors may influence a homemaker to replace an appliance that would still give service.

HERE'S HOW TO KEEP POTS AND PANS

The life and looks of your pots and pans depend upon preventive care.

Cooking at medium to low heat and washing utensils as promptly as possible after use will help to keep pots and pans of any material looking their best, according to Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota.

Each material, however, also requires some special type of care. Mrs. Jordahl gives these tips on care and cleaning of various materials:

. Aluminum. To prevent discoloration, avoid prolonged exposure to strongly alkaline foods and washing compounds. Brighten aluminum by using soap-filled steel wool scouring pads. Wash, rinse and dry. Cooking such acid foods as tomatoes or apples in a darkened aluminum pan will remove the discoloration. Also effective is simmering a solution of cream

of tartar and water, using 2 tablespoons cream of tartar to a quart of water.

. Copper-bottom utensils and stainless steel. To prevent permanent heat stains, avoid the use of high heat. Use special copper cleanser for copper bottoms, or use a combination of salt and vinegar or lemon juice. Washing in hot suds keeps stainless steel bright. Since it water spots, dry it well.

. Cast-iron. Wash, rinse and dry thoroughly to avoid rust. Rubbing with unsalted fat will prevent rust if the pan is to be stored for some time. Use steel wool scouring pads to remove burned-on food. Storing pans with their lids on may accumulate moisture and odors.

. Glazed earthenware. Handle gently to avoid chipping. Apply heat slowly. Never put an empty pan over heat.

. Glass. Avoid scorching food by applying heat cautiously. Avoid putting hot glass into cool water on on a cool surface since glass is sensitive to temperature changes. Use fine steel wool to remove burned-on food, or soak in water and baking soda.

Family Life

PLAN AHEAD BEFORE BUYING TOYS

Impulsive shopping is rarely a good idea when it comes to buying toys.

Plan ahead before you set off on your toy shopping expedition if you want to make the job of selection easier for yourself and at the same time choose a toy that will give maximum pleasure to a child.

That bit of advice comes from Charles Martin, extension family life education specialist at the University of Minnesota.

Toys wisely chosen perform the dual function of providing fun and enjoyment and of contributing to the development of the child.

Martin gives some major points to consider when buying toys:

1. Buy a toy that is suitable to the age of the child. Age suitability is scientifically tested by many American toy manufacturers. Look for labels and instruction sheets which give information of the suitability of a toy for a particular age group, on how the child can use it and how he will profit from the play activity.

2. Buy versatile, multi-purpose toys whenever possible. Blocks, for example, are toys that can be put to many different uses.

3. Keep in mind the varied play interests of the child. Every child needs a balance of toys to contribute to his all-round development and to satisfy his interest in four different types of play:

- . Manipulative, constructive and creative play. Blocks, construction toys, drawing and painting equipment give opportunity for expression of ideas.

- . Active, physical play. Push-and-pull toys, wheel toys, balls, sports equipment are typical playthings which aid physical development.

- . Imitative, imaginative, dramatic play. Dolls, housekeeping equipment, train systems and dress-up costumes are typical of the equipment which encourages imaginative expression and helps the child to understand the world around him.

- . Social play. Games in which several children can take part are important aids to social development.

CHILDREN LIKE THE FOODS GROWNUPS EAT

There's really no trick in keeping pre-school youngsters happy at mealtime.

They like to eat with the grownups, and they like to eat what the grownups eat. So why not let them?

It's easy to prepare meals that will suit the whole family. Youngsters need the same food as their parents--just a little less of it.

However, University of Minnesota extension nutritionists stress the need for a good diet of body-building foods--milk at every meal, a variety of fruits and vegetables, cereals, eggs and some meat, fish or chicken.

Keep the cooking simple. Avoid very salty highly seasoned foods or greasy foods and rich desserts for the children.

Youngsters are keenly aware of the flavors and textures of food. They're quick to spot milk with even a slight off-flavor or vegetables not quite up to par. It's a good idea for mother to cut cooked spinach to avoid strings and to see that the cocoa isn't scummy.

The best way to get the youngsters to try new goods is to offer them little tastes at the beginning of a meal, when they're hungry. Then ask if they'd like more.

Large servings often discourage children from wanting to eat. Make regular servings small; then offer seconds later.

When the children aren't as hungry as usual, don't force them to eat. As a rule, their appetites will be back to normal the next day.

LAY FOUNDATION OF GOOD FOOD HABITS EARLY

How do you teach a pre-school child to develop good food habits?

Mothers do have the responsibility of helping children develop the right food habits and attitudes, since these will influence the children's health during their lifetime.

Start by including the four basic food group in planning daily meals for children as well as adults in the family. These groups include milk - three to four cups for each child daily; meat - two or more servings of meat, poultry, fish, eggs, dry beans or peas; vegetable-fruit - four or more servings, including a citrus fruit or tomatoes, a dark green or deep yellow vegetable; bread-cereal - four or more servings of whole-grain, enriched, restored breads or cereals.

In addition to planning well balanced meals consider some of the characteristic attitudes pre-school children have toward foods, urges Grace Brill, extension nutritionist at the University of Minnesota. She lists these special considerations to keep in mind:

- . Use only one strong-flavored food in a meal. Children are more sensitive to strong flavors in foods than adults.

- . Include foods which have variety and texture, but avoid stringy, lumpy food. Children like crisp carrot sticks and toast. They like mashed potatoes and puddings that are soft but not lumpy. They dislike stringiness in beans and scum on cocoa.

- . Serve one food in a meal that requires some but not a great deal of chewing. Hamburger is more popular with children than steak because it's easier to chew.

- . Use color in meals. Children like food that looks attractive.

- . Keep food separated on the plate. Children don't like food mixed together.

- . Serve children first so their food will cool before they're ready to eat. They prefer food that's lukewarm.

- . Introduce new foods by serving only a bite or two in a meal with familiar foods.

TEEN-AGERS HAVE MONEY KNOW-HOW

Today's youngsters may have more money than the last generation--but they also earn much of it themselves and generally know how to spend it wisely.

These are some findings of a study of 339 ninth grade students 14 to 16 years old in three New York State schools.

Over 90 percent of the youngsters were actually saving money. More than 100 boys asked about automobile and life insurance, and 64 were interested in ways to save for retirement. Girls wanted information on planning and following a budget, and on how to wisely buy clothes.

The study, conducted by the New York State College of Home Economics at Cornell University, included an equal number of boys and girls.

Here's how the teen-agers spent their money during the week before the survey was

made: school expenses, recreation, snacks, contributions, books and magazines--in that order. Savings ranked seventh.

Boys spent more than girls--\$2 compared with less than \$1. But the boys also received higher allowances and worked more hours for pay.

None of the youngsters expected Dad to fork over money whenever they needed it. Instead, they felt they should provide their share of expenses.

When asked which items parents should pay for, they listed clothes, trips to the barber shop, school expenses and lessons. And, if there is additional money, the boys would like help buying sports equipment and the girls want money for cosmetics and jewelry.

Despite their sound approach to handling money, few of these youngsters said they had received much instruction in money matters from their parents. Many would like more help. They also want their parents to let them sit in on discussions of family expenses that concern them--such as planning vacations or the purchase of new furniture.

Food and Nutrition

THREE C's KEEP MILK FRESH

Remember the three C's in caring for milk if you want to retain its high quality: keep it clean, covered and cold.

If you follow these C's, you can keep an unopened bottle of milk at least seven days when stored at ordinary refrigerator temperatures which range between 40 and 45° F. This word comes from Elmer L. Thomas, associate professor of dairy industries at the University of Minnesota.

Thomas explains that the improvement in the keeping quality of milk has come about primarily through the introduction of grade A milk regulations. These regulations provide for very strict supervision of all phases of milk production and processing, beginning with the health of the cow and continuing through every step in handling and processing until the bottle finally reaches the hands of the consumer.

Proper refrigeration of milk is extremely important. Keep a thermometer in the refrigerator and check it often to be sure the temperature does not go appreciably above 40° F.

Get your milk into the refrigerator as soon as possible--don't leave it on the porch exposed to sunlight. An objectionable off-flavor results when a bottle of milk in a clear glass container is exposed to sunlight for 10 to 15 minutes. If exposed to sunlight a half hour to 45 minutes, much of the vitamin B2 or riboflavin is destroyed. An insulated box for home deliveries is a must to give protection from sunlight and to prevent milk from warming up excessively during hot weather.

Using paper containers or brown glass bottles delays slightly the effect of sunlight, screening out some of the ultraviolet rays.

TIPS ON KEEPING CHEESE AT HOME

Should cheese be kept in or out of the refrigerator? How can it be protected from mold? Will it freeze successfully?

One guide as to where and how to keep cheese is the modern food market. Consumers will find many cheeses in refrigerated showcases. These same varieties of cheese should be kept refrigerated at home, according to Howard Morris, professor of dairy industries at the University of Minnesota. Cheese spreads and process cheese sell from market shelves. Hence, before cheese spreads or packages of process cheese are opened, they may be kept on the kitchen shelf at home. Once opened, however, they should be kept in the refrigerator.

Soft, unripened cheeses, such as cottage, cream or Neufchatel, are perishable and should be used within a few days after purchase. Store them in the refrigerator as soon as you get them home.

Ripened or cured cheeses keep well in the refrigerator for several weeks if they are protected from mold or drying out. When possible, leave the original wrapper on the cheese. Cover the cut surface closely with wax paper, foil or plastic wrap to protect it from drying out. The mold which may develop on cheese usually does not harm the cheese. Scrape or cut it off.

When you take cheese from the refrigerator for slicing, let it first warm to room temperature. Cheese for desserts or appetizers will be more flavorful if taken from the refrigerator an hour or two before serving.

To avoid waste, cut off only as much cheese as you need at one time. Pieces of cheese left over or ends of pieces of cheese that have become dry and hard may be grated and kept in the refrigerator for use as a topping or garnish.

Certain varieties of cheese may be frozen if cut into pieces a pound or less, not over an inch thick, and stored at 0° F. or lower for six months or less. Wrap the cheese tightly in freezer foil or other moisture-proof wrapping. Brick, Camembert, cheddar, Edam, Gouda and Swiss are among varieties that freeze well.

PERISHABLE FOODS NEED REFRIGERATION FOR BEST KEEPING

Is it safe to keep cooking oils and salad dressings at room temperature? Does lard need to be refrigerated? What is the best place to keep sirups once the containers have been opened? How can you tell when food is spoiled?

Extension nutritionists at the University of Minnesota report that these are among many questions on food storage which women frequently ask.

Here are their answers:

It's all right to keep small amounts of cooking and salad oils at room temperature for a short time. But use them before the flavor changes. For long storage, keep oils in the refrigerator. Though some of the oils may cloud and solidify, they will become clear and liquid when warmed to room temperature.

Most of the firm vegetable shortenings and lard can be held at room temperature without damage to flavor. Lard that is not stabilized should be refrigerated.

All homemade salad dressings should be kept in the refrigerator. Commercial mayonnaise and other salad dressings should be refrigerated unless used within a few days.

Once opened, sirups keep best in the refrigerator where they are protected from mold. If crystals form, dissolve them by placing the container in hot water.

When foods are held too long or under poor storage conditions, they spoil. Some kinds of spoilage make foods harmful to health; some do not.

Indications of spoilage that make food unpalatable but not hazardous to health are the

rancid odor and flavor of fats caused by oxidation, the fermentation of fruit juices due to yeast growth and mold on bread. Among signals that indicate dangerous bacterial spoilage are off-odors in foods and a sour taste in bland foods such as creamed potatoes and creamed chicken.

There is little or no danger of food becoming unsafe to eat when it is kept in a refrigerator with a temperature of 42° F. or below. However, the nutritionists warn homemakers to cool hot foods rapidly so spoilage will not set in before foods reach a temperature of 42° or below.

NEED HELP IN SOLVING A WEIGHTY PROBLEM?

It's not necessary to sacrifice wholesome meals for the entire family just because one member of the family is trying to lose weight.

In fact, many foods on the menu may remain the same for dieting as well as non-dieting family members, according to Grace Brill, extension nutritionist at the University of Minnesota. Meals for a person requiring 3,000 calories and for someone else needing only 1,200 calories may differ only in amount of fat, in the size of portions and in such extra foods as dessert. Moreover, since practical and proper dieting does not include skipping any meals, the family may enjoy all their meals together.

Practical dieting involves: choosing lower calorie foods, avoiding added fats, fried foods, sweets, pastries and cakes. Select foods that furnish desirable nutrients--vitamins, minerals and protein--and not calories alone.

Weight watchers should choose foods from the milk, meat, vegetable-fruit and bread-cereal food groups. Within these four groups, make choices to suit your personal tastes, to correspond with foods in season, to fit the family budget. And of course count calories in selecting foods.

Plan meals around foods that give you and your family satisfaction. If you try to lose weight on unusual foods and food combinations, dieting may become discouraging and lead you right back to the old food habits that resulted in the original weight gain.

For calorie charts and further suggestions on weight control, get a copy of Food and Your Weight, a U. S. Department of Agriculture bulletin, from the county extension office or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

TEENAGE NUTRITION: FEAST OR FAMINE?

Teenage diets may be described as either a feast or a famine.

Teenagers as a group have poor food habits--particularly girls, according to Mrs. Margaret Doyle, assistant professor of nutrition at the University of Minnesota.

The feast in teenage diets is usually an overabundance of certain foods such as sweets and high-fat snacks which have little to offer except calories. The famine may be of such important nutrients as vitamins, minerals and protein.

Babies and children under 10 have excellent food records, the University nutritionist points out, but when children reach an age where they begin to make their own food choices, their record seems to deteriorate.

With the current trend to early marriage, many girls have the added stress of pregnancy at a point where their own growth and development may barely be completed. If the nutritional habits of these girls are poor, it is likely that the food habits of the new families they are starting will also be poor.

Among the principal reasons for the inadequate diets of teenagers, Mrs. Doyle listed poor choices of snacks and skipping breakfast. Snacks should be a part of the total food picture. Snacks such as fruit, milk, cheese sandwiches hamburgers all contribute important nutrients as contrasted with candy bars and soft drinks which provide little except calories.

Though boys' dietary practices are better than those of girls, boys' diets are likely to be lacking in vitamin C because boys don't like fruits and vegetables. Girls' diets often lack protein and iron. Calcium, vitamin A and riboflavin are often lacking in the diets of both boys and girls because they drink too little milk and don't eat enough fruits and vegetables.

Teenagers should get the advice and leadership they need to improve their diets from the example set by parents at home. Schools and the school lunch program may in some cases play a role of great importance in improving teenage diets.

COLD BUT SHORT KEEPING BEST FOR MEAT, FISH

Cold but short storage is a good rule to follow for meats and fish if you want the quality you paid for.

Quality deteriorates and spoilage may set in when these foods are not kept cold or are kept too long, according to extension nutritionists at the University of Minnesota.

Store fresh meat, poultry and fish loosely wrapped in the coldest part of the refrigerator--usually the area just below the freezing unit. Store cured and smoked meats in their original packages.

Since many homemakers ask how long it is safe to keep these fresh or cooked foods, the University nutritionists make these recommendations on length of storage:

- . Cold cuts. Use within 3 to 5 days.
- . Cured and smoked meats. Use ham slices within a few days, a half ham in 3 to 5 days, a whole ham within a week. Though uncooked cured pork may be stored longer than fresh pork, the fat will become rancid if it is held too long. Bacon should be eaten within a week for best quality.

- . Poultry and fish. One or 2 days.
- . Roasts and chops. Three to 5 days.
- . Ground meat. Use hamburger and fresh bulk sausage within 1 to 2 days.
- . Variety meats. Use liver, kidneys brains and poultry giblets within 1 or 2 days. Before storing poultry giblets remove them from the separate bag in which they are packed, rewrap loosely and refrigerate.
- . Leftover cooked meats and meat dishes. Cool quickly by placing container in cold water, cover or wrap loosely and refrigerate promptly. Use within 1 or 2 days.
- . Leftover stuffing. Remove leftover stuffing from poultry, cool immediately and store separately from the rest of the bird. Use within 1 or 2 days.
- . Leftover gravy and broth. These are highly perishable. Cover, store in the refrigerator promptly and use within 1 or 2 days.

SERVE HONEY AND BISCUITS ON COLD, SNOWY DAY

Thanks to billions of busy bees working overtime last summer in fields and forests, there's a lot of honey on the market this year-- for use as a spread and in cooking and baking.

Minnesota leads the nation in honey production. The 1961 Minnesota honey crop totaling 29,432,000 pounds was the largest crop since records were started in 1939 and was 10 percent larger than in 1960, according to the Crop and Livestock Reporting Service of the Minnesota and U. S. Department of Agriculture.

Honey is at its best uncooked--as a spread or topping, but it has dozens of other uses. On a blustery winter day, hot biscuits and honey or pancakes or waffles topped with honey have real taste appeal. When you use honey as a sirup, you may wish to dilute it slightly with hot water to make it less sweet and easier to pour.

For a sandwich spread, mix honey with chopped nuts and cream cheese. Or combine it with peanut butter. For variety, substitute honey for the sugar on cinnamon toast.

Here are some other ideas: Try honey and nuts on ice cream. Drizzle honey over your morning grapefruit. Make some honey dressing to add zest to your fruit salads.

Honey also adds special goodness to many cooked and baked products. It may be used in preparing custards, baked apples, candying sweet potatoes. Brushed on ham during the last half hour of baking, it adds extra flavor and a golden glaze.

Cakes and cookies made from honey keep moist for a long time. Usually it's best to use a special recipe calling for honey, according to extension nutritionists at the University of Minnesota. But they say you can use honey for part of the sugar in standard recipes if you follow these suggestions:

In cakes, simply substitute honey for half the sugar.

In cookies, the amount of honey that can replace sugar varies with the type of cookie.

For gingersnaps, honey can substitute for no more than a third of the sugar. For brownies, you can use as much as half honey; for fruit bars, up to two-thirds.

When using honey in baking, combine it with either the shortening or liquid.

Store honey at room temperature. If liquid honey should become granulated, simply place the container in moderately hot water and the honey will reliquefy.

AMERICANS NEED TO UNDERSTAND WORLD NUTRITION PROBLEMS

All educated Americans have the responsibility of knowing and understanding their own food and nutrition problems and those of people in other parts of the world.

According to Marguerite C. Burk, joint professor of agricultural economics and home economics, part of that understanding must be based on recognition of the economic factors contributing to food and nutrition problems.

As major world problems in nutrition Miss Burk listed:

INADEQUATE FOOD CONSUMPTION in terms of food energy for large numbers of people.

MALNUTRITION from overconcentration of diets on carbohydrates and insufficient consumption of foods supplying high-quality protein, vitamins and minerals.

WIDE SEASONAL VARIABILITY in food supplies. In the less developed countries, commercial processing and preserving facilities are limited.

Such nutritional problems as these have arisen, Miss Burk said, because:

. The population in many areas is out-running food supplies.

. Agricultural productivity is woefully low in some countries and also in less populated areas.

. Family food habits result both directly in malnutrition and indirectly through low productivity.

. The generally low levels of economic development in whole sectors of the world contribute significantly to nutrition problems.

Among contributions to the solutions of these problems Miss Burk emphasized the importance of slowing down the rates of population increase, raising general educational levels and providing special education in food, nutrition, other areas of home economics and sanitation. As further helps in solving world problems in nutrition she listed land reform, increases in agricultural and fishery production, development of marketing systems and facilities and general economic development.

Whether food supplies can catch up with food needs in many parts of the world is still a debatable question. The food resources of the United States will help. But even greater assistance will come from educators, food technologists and other technicians, home economists and agricultural economists, Miss Burk said.

GOOD MANAGEMENT
MEANS SUCCESSFUL
BUFFET MEAL

Management is the key to a successful buffet meal, whether it is an informal brunch or a large dinner party.

One of the best features of buffet service is that it gives the hostess more time to spend with her guests--if she has done some careful planning beforehand, says Mrs. Esther Trammell, assistant professor of home economics at the University of Minnesota.

Here are her suggestions for a successful buffet:

After deciding where to arrange the food, see what space remains for guests. The amount of space will influence the number you can invite. If you serve only snacks or beverages, guests may be seated or not. However, if you serve a dessert or a meal, the guests should

be seated at the dining table, card tables or in conversational groups. If guests are seated in groups, the hostess should provide small tables for the beverage or trays for the plate and beverage.

Several items should be considered when planning a buffet menu. Choose foods that require a minimum of last-minute preparation. Oven cookery needs less watching and leaves the hostess free to greet her guests. One caution, however: remember the capacity of your oven. Don't plan too many items that must be baked or heated until serving time. It's often helpful to plan some item that can be prepared a day in advance. Spiced fruits, steamed puddings or refrigerator desserts are such foods.

After selecting the menu, plan how to arrange the food on the serving table. Place the main items first, then vegetables and rolls, ending with an eye-catching salad or beverage which will give the table a balanced appearance.

Food Preservation

PROCESS BEET PICKLES IN HOT WATER BATH

As a safety measure when you can beet pickles, process them for 30 minutes in a boiling water bath.

That recommendation comes from Verna Mikesh, extension nutritionist at the University of Minnesota.

She points out that special precautions should be taken in canning all vegetables at home. Botulism, a highly fatal poisoning, is caused by improperly canned foods, particularly those foods which are nonacid. It is not possible to tell that the food is capable of causing botulism by looking at it or smelling it. If the food is poisonous, even the tiniest amount may cause

Non-acid vegetables should always be canned in the pressure cooker, according to the schedule recommended in Extension Folder 100, Home Canning, available at the county extension office.

Because of the acid in pickles, it's generally not necessary to process them after pickling is completed. However, because beets grow under the soil, it is advisable to take special precautions to see that all organisms are destroyed that might cause food poisoning.

HERE'S WHAT TO DO IF HOME FREEZER STOPS

No matter what the weather, when your home freezer stops, there's bound to be trouble. How much trouble you'll have depends upon how you handle the situation.

Mrs. Shirley T. Munson, in the University of Minnesota's food processing laboratory gives steps to take to prevent your food from spoiling.

First, keep the freezer closed. Opening the freezer door unnecessarily lets warm air in and raises the inside temperature.

Check immediately to see if your electric plug has been pulled out of the socket accidentally.

If the electricity is off in your area, find out how long it will be off. If it comes on again in a few hours, your frozen food is safe. When the power is off, food in a chest-type freezer that is full won't thaw for two days. In an upright, food will thaw sooner. In a freezer only

half full, food should keep well for one day. The larger the freezer and the better the insulation, the longer food will stay frozen.

If you think it may be longer than a day or so before your freezer is running again, you might try to get dry ice. The dry ice is most effective if you saw one 50-pound chunk into smaller pieces and set the small chunks on cardboard on top of the frozen food packages. Wear gloves to keep the ice from touching your skin.

Although it isn't necessary in most freezers, a small rod or pencil put underneath the lid will allow gas from the dry ice to escape. It's all right to put blankets around the freezer packed with dry ice as long as the air vent is not covered.

You could also arrange with a local freezer locker plant to transfer frozen food there in an emergency. To carry frozen food from one freezer to another, put crumpled newspapers around the frozen food packages and pack them in cardboard boxes.

If worst comes to worst, you can always eat the food. Fruits may be re-frozen if they are still cold, though refreezing will lower quality and change texture. Avoid refreezing thawed meats and poultry unless there are still some ice crystals in them.

USE FREEZER TO SAVE TIME

The home freezer can be a real time and energy saver for the busy homemaker and a special boon in entertaining.

Mrs. Shirley T. Munson, in charge of the University's food processing laboratory, urges women to use the freezer as a short cut to successful entertaining. In planning a company menu, choose foods that freeze well--for example, foods in sauces and gravies; then prepare them ahead of time. She gives these time-saving tips on using the freezer:

. Freeze baked rather than unbaked pies. It will take less time to thaw a baked pie than to finish making an unbaked pie. Baked pies also have better quality.

. Wrap rolls for the freezer in aluminum foil so they are ready to pop into the oven for warming.

. Keep plastic bags filled with ice cubes from the ice cube tray.

. Fill sherbet glasses or paper cupcake containers with ice cream or sherbet and set on a tray in the freezer ahead of time.

Home Furnishings

DON'T SKIMP ON QUALITY WHEN BUYING CARPETS

Don't skimp on quality if you've decided to invest money in a carpet or rug for a room where there's a great deal of traffic.

Poor-quality carpeting is not a wise investment, according to Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota. Carpets and rugs of good quality will pay off in years of service and attractiveness, she says.

She gives these tips to prospective carpet buyers:

. Remember that density of the pile is the best single clue to carpet quality. Don't hesitate to feel and examine closely the carpets you're considering. Bend a piece of the carpet toward its back to see whether it's closely constructed. Feel the thickness of the pile and examine the backing.

. Don't choose a carpet on the basis of fiber content alone. However, keep in mind the fact that various fibers have certain characteristics. For rooms in constant use, remember that carpets made of wool, nylon or acrylics, or blends of these fibers, rate high in resiliency and show crush marks least. Consider the more economical but less resilient fibers for areas not subjected to constant traffic.

. Be practical about color and texture. Look for medium tones or color blends and sturdy textures which will be easiest to maintain in heavy traffic areas.

. Take along fabric swatches and paint or wallpaper samples when shopping.

. Take a carpet sample home and see it in relation to your surroundings.

. Let your salesman help you in finding the soft floor covering best suited to your needs and preferences.

. Make preliminary measurements of length and width so you'll have some idea of the total cost.

. Remember there are other costs involved besides the price of the carpet per yard. Check to see if there are charges for such items as laying the carpet and for piecing. And don't forget the cost of the carpet pad.

. Beware of fantastic bargains. Don't buy a carpet that isn't properly labeled. Good manufacturers and reliable stores will stand behind products. Look for brand names.

GOOD CARE BASIC IN SERVICE YOU GET FROM RUGS

Regular vacuum cleaning and quick spot removal are the keys to good care of carpets and rugs.

The service you get from your carpet depends in part on the care you give it.

Regular vacuum cleaning is the most important step in keeping carpets and rugs at their peak of beauty. Cleaning even seldom-used areas regularly--once a week, for example--prevents atmospheric dust from settling in carpet fibers and makes the job of regular upkeep much easier.

Quick spot removal is the next major step in preserving the beauty of soft floor coverings. Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, says damage from stains can be kept to a minimum if you'll remember three points:

1. Act quickly when anything is spilled on a carpet--before the stains dry.

2. Have necessary cleaning equipment on hand.

3. Try to identify the cause of the stain.

Cleaning materials include water, a detergent such as you use for washing fine fabrics, white vinegar and a dry-cleaning fluid.

A simple solution of one teaspoonful of detergent to a quart of warm water will take care of many stains. Add 1 teaspoonful of white vinegar to this solution and use it for most food stains, spots caused by candy, beverages, pet stains and washable ink.

Dry-cleaning fluid is best for oily or greasy spots from lipstick, butter and hand cream.

In removing any spot on a carpet, use the cleaning material on a cloth or sponge--never pour it directly on the carpet. Sponge the spot lightly, working from the center toward its outside edges, using light brushing or tamping motions. Never scrub. Sponge the stain irregularly around the edges so there will be no definite line when the fabric dries.

Dry the carpet quickly as soon as you have used a cleaning material. Blot up moisture from carpet with a towel or blotter, and use a fan, small heater or the nozzle from the vacuum cleaner, blowing directly on the area. When the carpet pile is completely dry, brush it gently to restore the natural direction of the pile.

COLOR WILL WORK MAGIC IN ROOM

Color in your bedroom can work magic! So if you want to change your bedroom without spending a lot of money, try a new color scheme.

Color will add interest and can make a room appear larger or smaller, cool or warm. A good color scheme is composed of warm colors with cool color accents or cool colors with warm accents.

Warm colors are tones of red, yellow and orange. These colors give a room warmth and a friendly, inviting appearance. A color scheme with warm colors is best in a room facing north. Warm colors will make a room appear smaller.

The cool colors--blues, greens and violets --will give a restful, quiet feeling. These colors have a tendency to make a room look larger.

If you plan to make a complete color change in your room, remember that one color should dominate your scheme. The larger the color area is, the less bright the color should be.

Usually one pattern is all that should be used in a room. Choose either figured wall-paper or figured curtains and bedspread. You will find it easier to vary or change your color scheme if you select a neutral color for the walls and floor. Woodwork that blends with the wall color will make the room seem larger.

To add interest to a room, use small accents of bright or contrasting colors in pillows, pictures and lamps.

NEW CURTAINS WILL BRIGHTEN BEDROOM

New curtains will add color to a young girl's bedroom and dress it up.

Muslin, corduroy, gingham or denim is good material for tailored or casual curtains. Broadcloth or marquisette, a sheer fabric, is best for ruffled curtains. Choose a fabric that won't shrink or fade from bright sunlight.

White curtains will give a clean, fresh note to your room. However, if your walls are

a light or neutral color, you might prefer to have brightly colored or figured curtains.

If you decide to use figured material, remember that a small all-over pattern is easier to work with because it eliminates matching, points out Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota. If you choose material with a definite repeat pattern, have the complete pattern along the bottom of the curtain where it is more noticeable and, if necessary, part of the pattern at the top.

There's a variety of curtain styles to choose from that will harmonize with the style and furnishings of your bedroom. You may want to select a style that will make your windows appear larger or conceal old or dark woodwork.

Single panels may be hung at the window, covering only the woodwork, or several panels may be used to cover a large wall area and thus add width to the window.

Ruffled curtains of a soft or sheer fabric are often used in early American rooms. They may hang straight or be tied back. If ruffled curtains are your choice, you may wish to buy them, since they are rather difficult to make. Stores carry a wide range of sizes suitable for many windows.

Tier curtains are popular for bedrooms. These types are practical because you may close the lower curtains for privacy, leaving the top ones open to let in light. Curtains of three tiers are attractive at full length windows. A valance may be used with lower sash to make a window appear longer or to hide an old window shade or woodwork.

Home Improvement

IMPROVE STORAGE FOR BETTER LIVING

Good storage can do more to simplify daily living than any other single factor in housing.

Whether you're planning to build a new home or just interested in making more use of your available space for storage, here are some tips to help improve your storage. They come from Mary Muller, extension specialist in home improvement at the University of Minnesota, who suggests that part of the fall or spring housecleaning jobs might be devoted to improving existing storage.

Take time to be critical but open-minded as you analyze and apply these principles of general storage and examples to your home:

- * Store items near place of first use.

In the kitchen, store utensils and supplies near the place where you use them first.

- * Keep often used articles within easy reach.

Have the daily supply of plates on shelves in an area easily reached, keeping the remainder of the plates in a less convenient place.

- * Plan to have duplicate items in different places.

Have duplicate sets of measuring cups at centers in the kitchen where you use them.

- * Store articles used in each room in or near that room.

- * Plan storage space that is flexible and adjustable.

Make rods in children's closets adjustable so they can be raised as children grow taller.

- * Store supplies and equipment together if they are used in one process.

Sheets, blankets and pillow cases can be kept together in the linen closet.

- * Fit storage to supplies and equipment to be stored.

- * Sort out the seldom used articles and store them in a less accessible area.

BRIGHTEN AND ARRANGE CLOSET FOR SPRING

Spring is a good time to brighten up the inside of the closet and make it more attractive and more convenient.

When you remove wool clothes to make room for summer garments, take a good look at the closet, suggests Mary Lou Muller, extension home improvement specialist at the University of Minnesota.

A fresh wall finish will do a lot to brighten the walls and make the closet more attractive. Choose wallpaper or paint to accent or harmonize with the color of the bedroom.

Installing shelves above the rod and on a wall or making extra step shelves will give additional room to store hats, purses and shoes. Use the high shelf to store out-of-season clothes. Another way to accent the color scheme and make cleaning easier is to cover the shelves with washable, gaily colored shelf paper.

When you hang up your summer clothes, take time to arrange them carefully, advises Miss Muller. Remember that an over-crowded closet is not only inconvenient but is also hard on clothes because the soft fabrics in summer dresses will be crushed. Use the easiest-to-reach spot in the closet to hang the dresses and skirts you will wear most often.

Be sure to have good hangers for all your skirts and slacks. If you hang slacks over a wire hanger, pad it to prevent creases.

Full, fluffy petticoats will take up less space if you have covers for them. Make a tube-shaped case or pull each slip into an old nylon stocking.

Keep your light-colored summer shoes off the floor on shelves, on special racks or in shoe bags on the wall.

END DISCOLORING OF YOUR FABRICS

A month or two after buying a white blouse, it may turn yellow or gray.

Mary Muller, extension specialist in home improvement at the University of Minnesota, suggests some causes and solutions to this discoloring problem.

Clothes may become yellow during ironing or storage if soap curd or bleach is not thoroughly rinsed out. White nylon will yellow with repeated ironing at a high temperature and may discolor when washed with colored fabrics. After several washings or with age, some fibers also turn yellow.

Some resin-treated white fabrics may turn yellow when chlorine bleach is used during laundering. Follow carefully the washing directions that come with such fabrics regarding the use of bleach.

Fabrics will become gray if soap curd is not thoroughly rinsed away. Graying may also be due to hard water used for washing and for rinsing or to soil which is not thoroughly removed. Soil may remain in clothes if the wash water is not hot enough, if there is not enough detergent, if the washer is over-loaded, if the wash period is too short or if soiled areas are not pretreated.

To whiten these discolored fabrics, wash them using a nonprecipitating type of water softener (like Calgon, Tex, Noctil and similar products) without soap or a synthetic detergent. Use 1 to 1 1/2 cups of softener to a washer load. Removing soap and soil deposits whitens the

fabric, but it may be necessary to repeat this process several times.

SOFT WATER HELPS TO CLEAN CLOTHES

Yellowing or graying. . .stiff fabrics. . . bright prints becoming dull. . .shorter life of your fabrics - these are on many lists of wash-day problems.

Soft or softened water may be the solution to many of these problems, according to Mary Muller, extension specialist in home improvement at the University of Minnesota.

Gummy insoluble soap scum which settles on your fabric is often the cause of trouble. Hard water plus soap forms this scum which is almost impossible to rinse out. That's why it's important to use soft or softened water for the first rinse as well as for the wash water.

Find out the degree of hardness of your present water before you decide on a method of softening it. Four ways of determining the hardness of your water are available: using a commercial testing kit yourself; using a water testing service provided by local laundry appliance, water softening or utility companies; calling the city water plant to find out the degree of hardness; or calling in commercial testing companies.

Miss Muller suggests the following methods of softening hard water:

. Install a water softener tank into the water system of your house. This tank contains a synthetic resin which takes out the hardness minerals, but it must be regenerated periodically by flushing with a salt brine.

. Use packaged water softeners, adding them to the wash and first rinse water. Non-precipitating water softeners are suggested because they leave the water clear and soft. Calgon, Tex, Noctil and similar products are examples of this type.

When adding softener, keep in mind that the dirt on your clothes may add additional hardness to the wash water. Be sure the softener is thoroughly dissolved before adding the soap in your wash water.

PROPER RINSING WILL REMOVE WASH WATER

Your washer may leave 8 pounds of water in each 8-pound load of clothes before they're rinsed.

This startling statement comes from Mary Muller, extension specialist in home improvement at the University of Minnesota.

Miss Muller explains that studies have shown that after a 10-pound load of clothes is put through the wringer, up to 12 pounds of water may be left in the clothes. The spin cycle in a tumbler washer will leave as much as 9 to 10 pounds and in an agitator washer up to 9 pounds.

This wash water may contain the agents which can help cause your clothes to become gray or yellow if not completely rinsed out. Hence thorough rinsing is extremely important to remove these agents--soap curd, detergent deposits and soil. Use softened water for the first rinse water. When you rinse in tubs, your clothes will need at least two rinsings with considerable agitation. In a non-automatic washer, a good way to rinse is to fill the washer tub with cool or lukewarm water, add your clothes and agitate them for at least three minutes.

MORE CARE NEEDED TO KEEP WASH-AND-WEAR CLOTHES WHITE

Too many homemakers have taken the term "easy care" literally in laundering wash-and-wear clothing.

As a result, yellowing, graying and general lack of cleanliness of so-called easy-care fabrics are common complaints, according to Florence Ehrenkranz, professor of household equipment at the University of Minnesota.

Graying is often due to incomplete soil removal, which in turn may be due to improper detergent, too little or too much detergent, water that is not hot enough or too short a wash time.

Yellowing may also be due to incomplete soil removal or to the presence of iron in the water.

If the water supply has iron in it, yellowing will be a persistent difficulty which cannot be solved by bleaching. It will be necessary to get rid of the iron in the water.

As good laundering techniques that will retard yellowing and graying, Miss Ehrenkranz suggests:

. Water that is hot enough--a minimum of 140° F. for fabrics that can stand high temperatures.

. The correct amount of detergent as recommended by the manufacturer of the detergent or of the washer.

. Thorough rinsing.

. Occasional use of chlorine bleach for fabrics that can withstand this type of bleach.

Dacrons, blends of dacrons with other materials and many resin-treated fabrics can be a special problem because they pick up and retain grease and oil stains, which are difficult to remove. Pre-treatment of the stain is a must; otherwise the stain may not come out in routine washing and may be "set."

SORTING IS FIRST STEP IN LAUNDERING

Did you ever take pink socks out of the washing machine--socks that were white when you put them in?

Careful sorting and washing of laundry will prevent this misfortune, says Mary Muller, extension home improvement specialist at the University of Minnesota.

Careful sorting of soiled clothes is the first step to successful laundering. Sort clothes in groups according to type of fabric, construction, color and amount of soil. Read the labels on purchased garments. They will tell you what fabric the garment is made of and if it is machine or hand washable. Often tags also indicate shrink resistance and color fastness.

As you sort the clothes, roll down sleeves and pants cuffs and empty the pockets. Remove from blouses and dresses jewelry or buttons that aren't washable.

Also check clothes for tears and stains. Mend all clothes before washing to prevent a small hole or tear from becoming larger during washing. The sooner you treat a stain, the better chance you have of removing it. Hot water and soap may set the stain.

Pretreat heavily soiled collars or cuffs. Dampen the soiled areas. Then, with your fingers or a small brush, rub in a little of the detergent to be used in the washer. If clothes are unusually soiled, soak them in warm soapy water for 5 to 10 minutes.

When you wash, don't overload the machine. Check the instruction book for the number of pounds allowed in a load. Your washing machine will work more efficiently if it is loaded not quite to capacity.

For best results, mix large and small pieces in one washer load. The washing time will depend on the amount of soil and the machine. Usually from 5 to 8 minutes is sufficient for lightly soiled articles and up to 15 minutes for heavily soiled items.

WATCH OVERLOAD OF ELECTRICAL SYSTEM

If your electric iron or electric fry pan isn't heating as fast as you think it should--or as you'd like--the trouble may be that you're overloading the electric circuit.

Another indication of overload is dimming of lights or the TV screen when various appliances are plugged in.

However, if your fuses or circuit breakers are of the proper size, you'll receive a warning of an overload.

If these protective devices are the correct size, they'll let you know when you're putting too much of a burden on your wiring. The fuse will blow or the circuit breaker will pop open and cut off the current.

That's why it's dangerous to use a fuse too large for the circuit. You lose the protection it's designed to give, says Mary L. Muller, extension home improvement specialist at the University of Minnesota.

With too large a fuse, the demand may become too great for the circuit to deliver. The voltage will drop, wires may overheat, the insulation may melt and a short circuit can result.

Should the voltage drop low enough, motors that turn on automatically--those on your furnace and refrigerator--may attempt to start but never develop running current speed. Instead, they will churn away on high starting current and burn themselves out. Motors on vacuum cleaners, electric mixers or fans also will overheat and may need to be replaced.

So, if you're having what looks like a power shortage, check your circuits and calculate the load on each. A 15-ampere circuit will carry a load of 1650 to 1800 watts; a 20-ampere circuit can handle 2200 to 2400 watts.

If the wattage of all of the light bulbs and appliances on each circuit exceeds these figures, you'll have to take something off the circuit. Maybe you can shift an appliance to another outlet to get it on a less used circuit.

Before you buy any new major electric appliance, check it to be sure you have enough power to operate it. A "power-starved" appliance will not operate at full capacity or give you the performance you expect.

In the long run it's best to install adequate wiring to handle lights and electrical appliances. Secure a qualified electrician to do this job.

Home Management

READ LABELS ON SHEETS YOU BUY

Buying sheets at August white sales may mean a saving on the budget if you buy the quality that will meet your needs.

The label is one of your best buying guides. But you must also be equipped with information to interpret the label correctly.

Muslin and percale sheets come in various qualities. To be sure of getting the quality you want, check the label for type or thread count, which means the number of threads per square inch, suggests Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota. In general, a higher thread count muslin sheet is stronger than a muslin sheet with fewer threads. The same is true of percale sheets.

Popular muslin sheets are type 140, with 140 threads to each square inch, and type 128, with 128 threads to the inch. Type 140 is the highest-priced muslin but is sturdy and is the longest wearing. Type 128 is medium-priced muslin which gives satisfactory wear for household use. Sheets with thread counts lower than 128 may be too loosely woven to give satisfactory wear.

Percale sheeting is made of finer yarns and has a closer weave than muslin. It is lighter weight, smoother, more luxurious fabric than muslin, but is also more expensive. Though it can't be expected to wear quite as well, it's easy to handle in the laundry because of its light weight. Percale sheeting has a thread count of at least 180; finest quality percale is 200 or above. Sheets of combed percale are smoother and finer than carded percale and will give longer wear because the short fibers have been removed, leaving only the long, smooth fibers. These long fibers twisted into yarn make a finer, stronger thread for weaving.

Often you may be able to find a good buy in irregulars, seconds or thirds in the type sheet you want. Irregulars may mean the sheet has weaving flaws, crooked or poorly stitched hems or may have been bleached improperly. These imperfections may or may not affect wearing quality. Seconds may have tears or weak spots that need mending, but these may not be in an area that gets much wear. In any case, examine irregulars, seconds or thirds carefully before buying.

BUY SHEETS LARGE ENOUGH

To get maximum wear out of the sheets you buy at August white sales, be sure to buy them the right size.

In considering size, width is as important as length, Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota, points out. Many homemakers do

not buy sheets large enough. A top sheet should be long enough and wide enough to tuck under the mattress at the foot of the bed and to fold over the blankets at the head of the bed.

Width of a single bed sheet should be 63 inches. Three-quarter and twin beds require 72-inch width sheets and double beds or sofa beds 81- or 90-inch widths.

Most popular length is 108 inches. But be sure to check the label to see that this is the torn size before hemming. Sheets that are torn have straight seams and keep their shape better than those that are cut. Sheets not specifying torn size are often cut off-grain, which means the ends never will be straight.

Though 108 inches is the torn length, sheets are usually not more than 103 inches when purchased because about 5 inches must be allowed for hems. About 5 inches must also be allowed for shrinkage in laundering. Hence after laundering, a sheet labeled 108 inches torn length is actually about 98 inches. That's why it's a good idea to buy sheets a little larger than needed to fit the bed.

A sheet marked 99 inches before hemming is actually only 90 inches after laundering--too short to tuck in properly. Other lengths available are 113 inches, which provides more tuck-under at each end of a standard length mattress, and 117 inches for extra long or extra deep mattresses.

When you check the label, look for shrinkage information. The label may 1) give the maximum amount of shrinkage, 2) state that the sheet is preshrunk without telling how much more shrinkage may occur or 3) say the sheet is fully preshrunk.

Contour sheets, however, are always fully preshrunk; therefore it's important to buy them to fit the mattress exactly.

SITTING TO WORK MAY TAKE MORE ENERGY, AFTER ALL

Do you save energy when you work sitting down?

Now laboratory tests show that women actually use 4 percent more energy when sitting than standing to wash dishes and to iron clothes. Yet for years homemakers have been told that to save energy they should work sitting down.

A preliminary report of these tests has been made by the U. S. Department of Agriculture's Research Service. Their studies are part of continuing research on energy use to develop ways to do housework with less effort and to provide basic information needed to improve housing and household equipment.

Although results of the tests so far favor standing for short tasks to save energy, the researchers emphasize that saving energy is only one of many considerations in deciding whether it's best to work sitting or standing. Such decisions are important in planning kitchens and

other work areas. They point out that many people sit to avoid strain on their legs and feet, and of course physically handicapped women often have to do their housework sitting down.

Studies showed that lifting things from a kitchen counter to shelves above the counter takes more energy when done from a sitting than a standing position--an average of 4 percent more for a five-pound object and 6 percent more for a one-pound object.

To roll out dough takes 9 percent more energy when sitting on a kitchen stool than when you stand. Getting on and off a kitchen stool adds to the effort of work done while sitting. Counting the energy used in this way, plus the extra energy used to wash dishes sitting down, the researchers found that women seated used a total of 13 percent more energy for dishwashing than when standing to do the job.

Before advising homemakers whether to sit or stand for different jobs, the researchers say they need to know about the real causes of fatigue and whether their findings so far apply to longer working periods as well as to the short periods used in the tests. For these studies women subjects worked at each job four minutes.

HERE'S WHAT YOU CAN DO ABOUT ANTS

A parade of ants along the kitchen counter may greet you some morning as you're about to make breakfast. Mounds on the lawn and garden may be further warning that ants have invaded your house and yard.

John Lofgren, extension entomologist at the University of Minnesota, says that effective weapons to use against ants are such chemicals

as chlordane and dieldrin. To kill the ants, however, you have to get the ants and the chemicals together.

As a first step, the University entomologist advises observing the ants to find the path of travel they use between their nesting site and food supply. Their nests may be outside the house or they may be in a space behind the molding or the baseboard.

Now take a paintbrush and apply a ready-to-use oil solution of 2 to 3 percent chlordane or 1/2 percent dieldrin, Diazinon or lindane into the nest entrance, if you have found it. Apply the solution in a strip along the back edge of the counter tops, along baseboards, on window sills and around sinks and cupboards.

Applying the insecticide along the ants' path of travel will eventually kill off the workers and deplete the colony. This treatment may produce results rather slowly because the ants must crawl across the treated surfaces if it is to be effective. However, the insecticides are long lasting. A treatment once every two or three months should be enough.

When ants are a problem in lawns and gardens, Lofgren suggests making up a drench of chlordane and water and applying it with a sprinkling can to the nest. If hills are scattered over the yard, broadcast granular dieldrin or chlordane or broadcast-spray the insecticide over the yard and soak it in thoroughly with the hose.

Lofgren gives this warning: Don't allow the insecticide to contaminate food or dishes. And be sure to store it safely out of reach of children.

If you want further information on ant control, get a copy of Entomology Fact Sheet 19, What To Do About Ants, from your county extension office or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

Home Safety

PRACTICE SAFETY WITH ELECTRICITY

Defective, inadequate or misused electrical equipment and wiring were the major causes of fires in Minnesota farms and homes last year, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

Check the fuses in your electrical system; they are the safety valves against fire. Using heavier fuses than are recommended or coins or metal washers can cause fires. To change a fuse, locate and disconnect the lamp or appliance responsible for blowing the fuse. If you are uncertain which item caused the blow-out, disconnect the one you think is defective or the one taking the most electricity, such as an iron, television set or power drill. If your basement floor is damp, for your own safety, stand on a dry board as you remove the blown fuse and replace it.

Fuses blow when there is too much electrical equipment on one circuit. Some examples of inadequate wiring are too few switches where you need them, octopus outlets and too many extension cords in a room. Symptoms are dimming of lights or dimming or flickering of a television picture when a larger appliance is turned on. Another sign of poor wiring is a slow warming up period for a toaster, iron or other heating appliance.

Portable electrical tools should be grounded. Be sure that each hand tool has a plug with three prongs that fits into a three-way receptacle which is connected to the grounded entrance switch. Without such a ground, if the motor develops a short circuit, you may receive a severe shock which could result in death.

An adequate electrical wiring system will help prevent serious accidents and injury. After checking your circuits, a competent electrician can tell you if additional circuits are needed.

POISON PREVENTION IMPORTANT IN HOME

Poisons killed 30 Minnesotans in their homes last year. But many times that number became ill or were injured in some way by poisons.

"An ounce of prevention is worth a pound of cure" in the case of poisoning, according to Glenn Prickett, extension safety specialist at the University of Minnesota. It's far easier to prevent poisoning than it is to treat and cure the victims of poisoning.

During winter, when children are confined closely to the house, parents should make a special effort to keep poisons out of their reach.

He gives these tips:

. Clean out the medicine cabinet. Destroy

outdated boxes of pills and bottles of medicine.

. Store medicines in current use on high shelves out of the children's reach. Better still, lock the cabinet.

. Never leave bottles of aspirins or other pills standing on tables or counters within reach of the children.

. Always keep medicines in their original containers, plainly labeled.

. Store cleaning compounds out of the reach of children.

. Keep liquid fuels in tight containers out of the house.

. When using dry cleaning solvents on upholstered furniture, rugs or clothing, be sure to have windows and doors open for adequate air circulation to prevent danger from the toxic fumes. Use non-flammable solvents.

. Check gas burners on the range to be sure they are closed tightly when not in use.

In case of poisoning in the home, call the doctor immediately, identifying the poison involved so he can recommend the proper antidote.

A "universal" antidote recommended by first aid authorities includes 1 part milk of magnesia, 1 part strong tea and 2 parts burned toast.

SPRING IS SAFETY CHECKUP TIME

Spring clean-up time is also farm and home safety checkup time.

In your home, check the attic, basement and closets--any place where rubbish may have accumulated during the winter. Burn or haul away all rubbish.

Working safely is important when cleaning your home, says Glenn Prickett, extension safety specialist at the University of Minnesota. The cleaning solutions you use are poisonous if taken internally, so keep containers and scrub pads out of reach of young brothers and sisters.

Put the medicine cabinet on your list of places to clean. Burn or bury poisons. Those you must keep should be clearly labeled in their original bottles. Keep the bottles well away from youngsters in a locked container, if possible.

When you have a high place to clean, stand on a sturdy step stool or ladder.

Safety is also important as you begin working in the yard this spring. After you rake the yard or hoe or spade the garden, be sure to put the tools away. A rake laying in the grass with the teeth up is an invitation for an accident and a serious injury.

If you don't have a safe place to store the garden tools, build a rack or put up hooks for them in the tool shed or basement.

Give your farm buildings a thorough check-up, too. Remove and burn all rubbish that may cause a fire. As a constant reminder, post "no smoking" signs on all buildings.

If gates or fences were damaged during the winter, repair them. A broken fence could cause serious injury to people or livestock.

FOR SAFETY
KEEP PICNIC
FOODS COLD

Don't flirt with food poisoning this summer!

Food for the picnic, the lunch box or the community supper needs to be kept cold from the time it's prepared until it's eaten--or until it's cooked and served hot.

Cases of food poisoning have resulted from eating picnic foods that have stood for hours in a warm place such as the trunk of a car.

Keeping food at 40 degrees F. or below--the temperature in a good home refrigerator--is recommended by extension nutritionists at the University of Minnesota for all foods during transportation to the picnic or community food center and also while they are waiting to be served. Many types of insulated food containers are for sale today that will keep food cold for hours, provided the food is thoroughly chilled when placed in the container.

Often homemakers don't make arrangements for keeping salads, sandwiches, meat, eggs, pies, cream-filled or custard-filled cakes and other soft desserts thoroughly chilled for eating out, though they understand the importance of refrigerating these foods at home.

There's also misunderstanding about care of hot dishes--like meat or poultry pies, meat loaf, soups, stews or casseroles. If these are prepared at home for a picnic or community meal, they should be refrigerated promptly after cooking and then kept cold until they are reheated for serving. Otherwise, they may gradually become lukewarm and susceptible to spoilage before serving.

Research has shown that food which is soft, moist, nonacid or handled a good deal in preparing needs special care. Such foods need to be chilled promptly by putting them in several small containers in the refrigerator or spreading them out flat on platters. Food prepared in quantity for community picnics--such

as salad mixtures of meat, eggs, fish, poultry or potato--sometimes is refrigerated in such large containers that spoilage may occur in the center before the mixture chills through.

Though cooking thoroughly is a safeguard if food is eaten promptly, it makes many foods softer and more moist and thus susceptible to spoilage if held without chilling.

FEWER HOME ACCIDENTS IN MINNESOTA LAST YEAR

Minnesota had fewer deaths from home accidents in 1961 than in the previous three years, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

Accidents in Minnesota homes were responsible for 407 deaths in 1961 as compared to 451 for 1960, 498 for 1959 and 422 for 1958. Fourteen fewer deaths from accidents occurred in nonfarm homes in 1961 than in 1960 but the number in farm homes was only three less.

In spite of the decline in the home accident toll, the home still ranks second to the highway as the scene of accidents.

In addition to the number killed at home, at least 40,000 people in the state suffered temporary or disabling accidents.

Falls were responsible for more than half of the accidental deaths in the home. Last year 194 Minnesotans died as a result of falls in the home, the largest number in the over-65 age group.

Fires, explosions of combustible material and burns were the number two causes of fatal home accidents in 1961. Eighty-two persons died as a result of fires, burns and explosions in home accidents in Minnesota compared to 75 in 1960.

Poisoning ranked third as a cause of home accident deaths; firearms, fourth; suffocation, fifth.

Each year more deaths from home accidents occur among people 65 and older than in any other group, with infants and young children next. Poisonings are responsible for many of the deaths among children, whereas falls cause most of the deaths among older people.

Housing

MORE BUILDING
BY LOW-INCOME
FAMILIES IN 1962

More home building and remodeling by low-income and medium-income families is in prospect for 1962 because of housing legislation.

Some recent developments that may help families plan their housing budget for the new year are reviewed by Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota.

The Housing Act of 1961 includes several provisions to help many families previously not qualified either for government or commercial housing credit. Rural families not engaged in farming are now eligible for Farmers Home Administration loans. So are farm families who want a small loan to repair or modernize a home but who do not want to add an extra mortgage to the farm. Low-income rural families who now lack a household water supply will be able to borrow money for a well.

For urban families, the act permits the Federal Housing Administration to insure mortgages on homes with both a smaller down payment and a larger mortgage amount than before. It also provides for a maximum maturity period of 35 years in case of new homes.

The act sets up a new program under which the FHA may insure loans for major home improvements, up to a maximum of \$10,000 per dwelling unit. Although primarily designed for homes 10 or more years old, new homes are eligible for this insurance if major structural changes are involved or if the improvements are necessitated by fire, flood or other casualty.

Expenditures for housing, either as monthly rents or payments on a mortgage, are likely to be a much greater factor in the family financial planning of the average urban family than of the average farm family. However, the percentage of family spending going for housing has not changed much in 10 years. It averaged about 27 percent of all family spending in 1960--only 1 percent higher than in 1950.

ADJUST HOME
TO FAMILY

If you expect to build a new home, plan it with an eye to the future as well as the present.

That suggestion comes from Mary Lou Muller, extension home improvement specialist at the University of Minnesota.

Fit the house to the people who live there, taking their ages into consideration, where they work and how they play. But as the family changes, so should the living areas.

When there are pre-school youngsters in the family, the homemaker will want to keep a constant eye on them. So a large kitchen might be divided by a peninsula with food and laundry facilities on one side and a play area on the other. A window would overlook the playground.

When the family reaches the stage where some of the children are in school, some too young for school, the dining room can take on a dual purpose by the addition of a piano.

Another rearrangement in the dining room might take place as the children get older. A sewing machine might replace the play pen.

Elsewhere in the house the arrangement of furniture changes to fit the hobbies and habits of the youngsters. Blocks and trucks move out of the recreation room and this area becomes a young people's room.

As the children grow up and the family becomes all adult, more changes take place. The piano may be moved into the living room and the dining room might become a family room or a bedroom so the parents can live on ground level.

BOOK OF HOME
IMPROVEMENT PLANS
NOW AVAILABLE

Are you planning to build a new home or remodel a room or two?

You'll find helpful suggestions in a new publication, Home Improvement Plans, released by the Midwest Plan Service, a non-profit organization of 13 land-grant colleges and universities, including the University of Minnesota.

For the family planning to build, suggestions on selecting a house plan are accompanied by typical floor plans for two- and three-bedroom houses. Some guidelines are provided to help the family decide whether remodeling is worthwhile.

Drawings and space recommendations are given for every room in the house, as well as for laundry and sewing centers. Basic space requirements are included for kitchens--the U-shape, L-shape, one-wall assembly or corridor type.

Many solutions are offered to the ever-recurring problem of insufficient storage. Eight pages are devoted to kitchen storage ideas and to detailed plans for kitchen corner cabinets and such storage units as slide-out trays, door shelves, file dividers, knife holders and under-counter rolling storage. Plans are suggested for sports equipment and gun storage, linen cabinets and office desks. Of special interest to the homemaker are the drawings showing possible ways of improving use of space in existing clothes closets and ideas for new closets.

Recommended dimensions for stairs, basic information on drawer and cabinet construction, wood finishing and types of materials, pointers on insulation and directions on building a home workshop are included in the 48-page book.

Developed by University agricultural engineers and home economists, the publication is available from the county extension office for \$1. Or order from Bulletin Room, University of Minnesota, St. Paul 1. Include your money with your order.