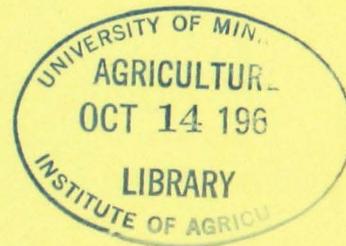


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Top Stories in HOME ECONOMICS

JULY 1, 1962 - JUNE 30, 1963



- **Research**
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COMPILED FROM NEWS RELEASES ISSUED BY THE INFORMATION SERVICE

INFORMATION SERVICE ● AGRICULTURAL EXTENSION SERVICE 2
INSTITUTE OF AGRICULTURE UNIVERSITY OF MINNESOTA 1

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

SHRINK-PROOF KNITWEAR ON MARKET

Next time you shop for cotton T-shirts, children's sleepwear or underwear, look for a label that indicates shrinkage control.

Shrinking of knitwear in laundering has plagued consumers and manufacturers for years. Some knitwear has shrunk as much as 20 percent when dried on the clothes line and even more in an automatic dryer. Now, however, a process has been developed to control shrinkage of knitwear, according to Thelma Baierl, extension clothing specialist at the University of Minnesota.

The new process, labeled as Pak-nit, compacts the knit fabric and shrinks it before it is made into a garment. Shrinkage is guaranteed as less than 1 percent. Pak-nit is designed for knitted goods just as the well known "sanforized" is for woven textiles.

A year ago only one manufacturer was licensed to produce Pak-nit. Today more than 30 manufacturers are producing T-shirts, men's, boys', girls' and women's knit underwear and sleepwear as well as infants' sleeping garments using the Pak-nit process of controlled shrinkage.

The Pak-nit symbol usually appears as a red saw-tooth circle with these words: Pak-nit, knit garment, less than 1 percent shrinkage by government standard test.

CHEMICALLY TREATED BLANKETS HELP CONTROL SHRINKAGE

If you're in the market for a wool blanket you may be wise to select one that has been chemically treated for shrinkage.

Preliminary results of research being carried on by home economists at the University of Minnesota on the effect of laundering on chemically treated blankets show that the appearance and the hand or feel of the treated blankets in the tests remained much the same with progressive washings. The chemical treatment was especially effective in controlling warp (lengthwise) shrinkage.

After 10 washings, however, from 6 to 9 percent filling shrinkage occurred in both the treated and untreated blankets. Nine percent shrinkage in length of the untreated blanket would be a loss of approximately 8 inches in a 90-inch blanket. As a result, there would be little length for tuck-in, since this loss amounts to more than the depth or thickness of the mattress.

Proper washing of blankets--in softened, lukewarm water with little agitation--is extremely important in maintaining the original

warmth and fluffiness of either untreated or treated blankets, according to Suzanne Davison, professor of home economics in charge of the blanket research at the University of Minnesota. A too severe washing procedure--with hot water and much agitation--would felt and stiffen the blankets, whether they were chemically treated or not, though the most damage would be done to those not treated.

Miss Davison gives a progress report of the blanket study in the summer issue of Minnesota Farm and Home Science, University of Minnesota Agricultural Experiment Station publication. The findings reported are based on a limited phase of the study being carried out in laboratories of the University's School of Home Economics. The Minnesota Agricultural Experiment Station is working cooperatively with the South Dakota Agricultural Experiment Station to determine the effect of laundering on wool blankets especially treated for controlling shrinkage.

MILDEW IS THREAT IN HOT, MOIST WEATHER

When muggy summer weather sets in, beware of mildew!

Mildew can damage clothing, shoes, books and even wood in hot, humid weather.

Molds causing mildew flourish wherever it is damp and warm in poorly aired and poorly lighted rooms -- in cellars and closets, on draperies and rugs in basement recreation rooms, on shower curtains, on damp clothes rolled up for ironing. As molds grow, they discolor fabrics and sometimes cause them to rot. They also cause wood to decay and discolor leather and paper. A musty odor is often the sign of mildew.

Prevention is worth a pound of cure when it comes to combating mildew. Extension clothing specialists at the University of Minnesota give these suggestions on preventing mildew:

- Keep clothing and storage places clean. Clean garments before storing them. Keep closets, dresser drawers and basements as clean as possible. Soil on articles can supply enough food for mildew to start growing when moisture and temperature are right.

- Keep rooms and clothes aired and dry. Good ventilation is important to remove moisture caused by cooking, laundering and bathing. Ventilate the house when outside air is drier than inside air. Run an electric fan in places that can't be exposed to outdoor breezes.

- Hang garments so air circulates around them. Store shoes and suitcases on shelves off the floor.

Mechanical dehumidifiers will get rid of dampness in the air but should be used with doors and windows closed.

Get rid of musty odors. They probably indicate mold growth. Anti-mildew sprays containing a chemical to stop growth of molds are effective in removing mustiness from closets.

Never let clothing or linens lie around damp or wet. Dry soiled clothing and damp towels before putting them into the laundry hamper. Spread out wet shower curtains. Sprinkle for ironing only as many articles as you can iron in a day. And be sure to dry all clothing wet by rain or perspiration before hanging it in a closet.

MILDEW A PROBLEM AT YOUR HOUSE?

Persistent rainy weather has made mildew a real problem in many Minnesota homes.

Homemakers report musty odors in cupboards and mildew on clothes, mattresses and upholstered furniture--particularly if stored in the basement.

Solution of the problem, say extension clothing and home improvement specialists at the University of Minnesota, is to treat mildew stains as soon as you discover them -- whether they're on clothing or household articles. Otherwise the mold will eat into the fabric.

First step in the treatment, they say, is to brush off as much mildew as possible outdoors to avoid scattering spores in the house. Next step is to launder washable fabrics and sun-dry them. Moisten any remaining fabric stain with lemon juice and salt, spread in the sun to bleach, then rinse and dry. Or use sodium perborate or other bleach suitable to the fabric. Before using lemon juice or bleach on colored fabrics, however, test the material first. Have nonwashable fabrics drycleaned promptly. Soiled clothing mildews more quickly than clean clothing.

If upholstered articles, mattresses or rugs are mildewed, vacuum the surface after brushing it. If possible, sun and air the article to stop mold growth. If mildew remains on upholstered furniture, wipe it with a cloth wrung out of dilute alcohol (1 cup denatured or rubbing alcohol to 1 cup water). Then dry the article thoroughly. An electric fan will help.

For mildewed leather goods, use the alcohol treatment and then turn an electric fan on the article to dry it. If mildew remains, wash with a thick suds of mild soap or saddle soap. Wipe with a damp cloth and dry in an airy place. Polish leather shoes and luggage with a good wax dressing.

Paradichlorobenzene, recommended for moth control, will also control mildew on clothing packed in trunks or garment bags.

Anti-mildew sprays containing a chemical to stop mold growth are effective in removing musty odors from closets, cupboards and uphol-

stered furniture. These sprays will also protect leather goods.

Ventilation is necessary in closets. Hang garments so air circulates around them. Be sure to dry all clothing wet by rain before hanging it in a closet.

CLOTHING TAKING LESS OF FAMILY DOLLAR

When you talk about the high cost of living, don't include clothing.

Clothing is taking a smaller part of the family dollar now than it did 20 and even 35 years ago.

Americans now spend only about eight percent of their incomes for clothing compared to 11 percent 20 years ago and 13 percent in 1929, report extension clothing specialists at the University of Minnesota.

Although prices for all goods and services have increased 15 percent in the last 10 years, clothing prices, on the average, went up only three percent between 1951 and 1961. Biggest increases in clothing were in footwear, which rose 20 percent, and in men's and boys' apparel which went up 4 percent. On the other hand, women's and girls' apparel dropped 2 percent and yard goods and infants' and toddlers' clothing went down nine percent.

If you find that your family's clothing bill is higher these days despite the small overall increase in clothing prices, University clothing specialists say one explanation may be that you're buying higher quality clothing because your income has increased.

Besides the lower prices of clothing compared with prices of other items, a number of other reasons may account for the decline in clothing expenditures -- the popularity of casual clothes, the greater utility of fibers used in clothes, the competition of other goods and services for the family dollar and the changing character of the population.

Many of the casual clothes are less expensive than more formal clothing. Separates both for men and women provide greater variety in mixing garments and allow for cheaper replacement of a part instead of the whole costume. In footwear, inexpensive play shoes and sandals have accounted for about a third of the shoes for women in recent years.

Life of many garments has been lengthened by the use of more manmade fibers.

Many families are finding other attractive ways to spend their money than for clothing. If present increased spending for housing and household goods continues, the house may replace clothing as a status symbol.

The changing character of the population is also having its effect on the total amount spent for clothing. Groups who customarily spend less for clothing -- people over 65 and under 15 years -- now comprise at least 40 percent of the population compared with 32 percent in 1940.

WATCH FOR NEW CLOTHING PRODUCTS

New textile products developed in the laboratory will be put to many different uses in 1963.

Throw-away nylon hose, for example, are on the way, according to manufacturers. The low-price type is produced by omitting knitting of the heel pocket, then molding to shape on aluminum frames. Consumers will welcome the news that these hose are expected to be about 39 cents a pair.

No-run seamless nylons, recently introduced in some areas, were reputed to be no-run even when scratched by cats. However, it is reported that the run resistance applies only to the legs, and the hose are not so sheer as others. These hose retail at about \$2 a pair.

Stretch cotton fabric, another recent introduction, is expected to be used in work clothes and everyday clothes where it will allow stretching room across the back, at knees and elbows.

A major producer plans to introduce a new stretch wool fabric in some of its men's winter suits retailing for about \$115. The fabric is said to spring back into shape after stretching. Manufacturers also plan to introduce a combination Dacron-wool stretch suit which will have greater crease retention.

A new glass yarn has been developed for apparel, home furnishings and industrial uses, with more resistance to abrasion and breaking than similar fibers now used on the market.

A nylon zipper without metal teeth was introduced in ready-to-wear garments a year ago and is now available for home sewing. The new zipper is smaller, more flexible, less likely to catch threads and cloth.

A new manmade type of shoe material has been introduced recently for high-gloss shoes -- a material which resists cracking and scuffing and can be cleaned with soap and water. This material, claimed to have the porous qualities of leather, has been proposed for use in high priced shoes for women.

Research is also under way to extract chemicals from hides and convert them into a continuous sheet of material to eliminate some of the waste created by the shape and imperfections of natural leather.

CHOOSE CORRECT TYPE OF HANGERS

Wire hangers from the dry cleaners should not become a permanent accessory in your clothes closet, cautions Thelma Baierl, extension specialist in clothing at the University of Minnesota.

These wire hangers are not shaped correctly for most clothes that are to be hung for some time. They can cause the garment to lose shape and droop. They may cause threads to distort and stretch, leaving a bulge.

A serious and ever-present problem with wire hangers occurs when they are used to hang up a washed garment for drying. These hangers were not designed for home use, particularly after washing. Often they will leave rust marks on clothes. Wet or dry, a hanger will cause an unsightly crease mark across the trouser legs or the center of the skirt that is hung across an unprotected bar of a hanger.

To avoid these crease marks, rust stains and drooping shapes, Miss Baierl suggests using the press-type or clothes-pin type hangers for skirts, and pants holders for slacks.

Use good judgment in selecting wooden or plastic hangers. The design of the hanger is important. A slim contour hanger is not much better than a wire one. Hangers with extra thick ends will keep coats in shape even if they are wet or damp from the rain. It is not necessary that your hanger be fabric covered for good service.

If you are short on closet space, heavy metal multiple blouse or skirt hangers may solve your storage problem. This type of hanger will take care of as many as six blouses or skirts in tiers.

Never hang knitted garments on hangers. Fold them carefully in drawers.

Don't forget about the children. There are hangers scaled especially for their clothes, too.

LABEL IS CLUE TO SHRINKAGE MYSTERY

The Sherlock Holmes of the family doesn't need a magnifying glass to solve the mystery of shrinkage of material. All this famous mystery-solver needs to do is read the label on the garment.

Remember that neither price, look nor feel of a fabric gives a clue to shrinkage, reminds Thelma Baierl, extension specialist in clothing at the University of Minnesota.

Look for clues in labels to help you discover degrees of shrinkage. The term "sanforized" on a label means that the fabric won't shrink more than one percent in either length or width. "Preshrunk" has meaning only when followed by a line telling how much the fabric will shrink, such as "Preshrunk -- will not shrink more than one percent."

"Will not shrink," "shrink proof," "unshrinkable" or "shrinkless" are inaccurate terms.

Homemakers can do their own detective work. When buying a garment, multiply the shrinkage percentage given on the label by the number of inches in the garment. This result gives you the number of inches a garment may shrink in length. For example, a dress for a woman measures about 50 inches long; one percent shrinkage would change the length by 5/10 or half an inch. But three percent shrinkage would make a change of an inch and a half, hence alterations would be necessary.

CHOOSE, USE THE CORRECT INTERFACING

Grandmother used starched linen and steel frames to retain a certain shape in her clothes. In today's fashions, molding and holding shape is done through the use of interfacings.

Interfacings perform these important functions, says Thelma Baierl, extension specialist in clothing at the University of Minnesota: They prevent sagging, add firmness, add a crease-resistant quality, reinforce a seam or button-hole area, support the roll of lapels and collar, soften the turn of the coat hem and sleeves and give shape to parts of the garment.

The type of interfacing depends on the weight and sheerness of the fabric and how it is to be used in the design of the garment.

Interfacing should never be heavier than the fabric it supports. It should be resilient and the color should match or blend with the outer fabric. Check the cleaning requirements of both fabrics. They should react the same when washed, dry-cleaned or when heat is applied. Make sure the interfacing is thoroughly shrunk before using it.

A woven interfacing is easier to press and shape, so it can be used for details that mold to the body. When shape can be achieved through cutting and stitching, a nonwoven interfacing might be used.

Cut a fitted facing and its interfacing on the same grain as the part of the garment to be faced, with the exception of a bias strip used at sleeve and coat hems.

When making seams in interfacing, lap the seam, stitch flat and trim closely. In darts, slit the dart through the center, stitch flat and trim. To avoid bulk at corners, cut away 3/4 inch of interfacing point before attaching to the fabric.

WHAT'S YOUR SWEATER I. Q. ?

If you want your sweaters to keep looking like new, follow the care directions on the label.

Following directions in caring for sweaters is important because of the variety of fibers which makes special ways of cleaning them necessary.

An example is "Orlon Sayelle," a new acrylic fiber put on the market in 1960. Because this fiber adds a new dimension in sweaters, it also adds a new dimension in caring for them, according to Athelene Scheid, extension clothing specialist at the University of Minnesota.

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 fi-

ber with the permanent reversible corkscrew crimp.

This unusual fiber structure permits either hand or machine washing. You may tumble dry Orlon Sayelle sweaters in a home dryer or place them on a flat surface and gently bunch them into shape so crimping will recur. These sweaters should not be hung up to dry.

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

MEN WANT COOL COMFORT IN SUMMER SUITS

Hot weather is sending many men scurrying to buy summer suits that will provide coolness and wrinkle resistance.

Among characteristics the male shopper will find in summer suits this season are press retention and long wear, along with cool comfort and wrinkle resistance, according to Thelma Baierl, extension clothing specialist at the University of Minnesota.

Among most popular blends in summer suits are 55 percent manmade 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 manmade fibers give strength, wrinkle resistance and press retention.

The male shopper in the market for a wash-wear suit will find a wide selection available in poplins, twills, hopsackings, cords and seersuckers. Usually these come in blends of 50 percent or more polyester manmade fiber with cotton or rayon.

If you are planning to buy a washable summer suit, Miss Baierl gives some points to check before buying:

. Suiting. The material should be a smooth weave that resists soil and is lightweight but is 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.

Consumer Marketing

LOOK FOR NEW PRODUCTS ON GROCERY SHELVES

New convenience foods may soon find their way to grocers' shelves as a result of research in developing new products by the U. S. Department of Agriculture.

Instant sweet potato flakes, developed by the Southern Regional Laboratory, have already been tested favorably in Cleveland and New Orleans restaurants and other types of institutional outlets. The flakes are easy to prepare and save both time and labor.

Instant bean, pea and lentil powders have been developed by the Western Regional Laboratory for soups and other uses. Soups can be prepared by merely stirring the powder in hot water to give the desired consistency. These products have other uses also. For example, the bean powder can also be used as the base for croquettes, dips, casseroles.

Potato flakelets are a new form of mashed potatoes with all the virtues of the bigger brother flakes, with the addition of greater density. Because there is more product per package, packaging costs and shelf space will be reduced.

Fruit and vegetable pieces may soon be instantized for quick rehydration as a result of work being done in USDA's Eastern Regional Laboratory. The products resulting will require only 5 to 6 minutes of simmering, in contrast to the 20-60 minutes necessary for conventionally dried pieces of the same size. The process will make available relatively large pieces for various dehydrated soup mixes without any increase in reconstituting time. Dried fruit pieces will also have a potential use in cake mixes and in cereals.

Freeze-dried products, which can be kept on the shelf after being dried under vacuum in the frozen state are becoming more widely available for the consumer. Among these products are packaged soups, hamburger patties, shrimp and steaks. They are in demand by campers, hunters and other outdoorsmen.

FOOD PRICES TO BE SAME IN '63

Food prices are expected to stay at about present levels during 1963.

Yet you and other American consumers will probably spend more in total for food, even though you'll continue to eat about the same amount as in the past year. But your total expenditure for food still means you will use a smaller proportion of your income for this outlay because of higher incomes. According to latest indications, Americans spend on the aver-

age about 19 cents of every dollar of take-home pay compared with 26 cents in 1947-49.

The increased spending for food will be accounted for by demand for higher quality, higher-cost items and foods requiring more services either in processing or distributing. For example, Americans are eating more and better cuts of meat and more convenience foods such as mixes, frozen fruits and vegetables, frozen dinners.

Retail store prices are likely to change very little in 1963, except for seasonal variations. However, prices of food consumed away from homes -- at restaurants and hotels -- will continue to go up.

Prices may be slightly higher on apples, lemons, lamb. Because of the freeze in Florida, consumers may see increased prices for oranges.

Slightly lower prices may be in the offing for pork, frying chickens, canned vegetables.

SAVINGS FOR CONSUMERS THROUGH GROCERS' EFFICIENCY

The way your grocer handles his merchandise can make a dollars-and-cents difference to you as a consumer.

An efficient grocer who saves money through time-saving work methods can pass along a part of these savings to his customers.

Next time you go into the grocery store, look around and see how efficiently your grocer operates. If his help uses good handling methods and keeps busy, you'll probably pay less for the food you buy there -- less, at least, than you would in a poorly managed retail food store.

Researchers in the U. S. Department of Agriculture's Agricultural Marketing Service are constantly seeking new ways to make the retail grocer more efficient and the job he does less costly.

Studies by these marketing researchers show, for example, that a large store that tray-packs its canned goods -- that is, cuts off the top of a carton and moves the merchandise, carton and all, to the retail display -- saves up to \$3,000 a year.

A retailer can even save money in the way he prices his items. USDA research shows that stick stamps which make the familiar purple price markings on cans and cartons are quicker and easier to use than other devices. Your grocer may save himself \$400 a year by using such price-marking stamps.

An average-size supermarket that saves one second in the handling of each item can make a saving of over \$1,400 a year, USDA economists figure.

Other similar savings come from more efficient handling, small inventories and careful work schedules. These small savings at the retail market hold down the marketing bill. They help offset wage increases, one of the big reasons marketing costs -- and consumers' food bills -- have gone up in recent years.

PER PERSON FOOD COST SMALLER FOR BIG FAMILY

If yours is a large family, you may at times be overwhelmed by your food bill.

But the actual cost per person is less than in a small family, though the total food bill will take a bigger bite of your budget.

Today's family of four, with two school children, spends about \$32 a week for food -- or \$8 per person -- using a moderate-cost food plan. A low-cost plan may run about \$24 a week for a family of four.

If there are five in the family, food costs will run 5 percent less per person. But with six or more people to feed, you'd pay 10 percent less for each, according to economists in the U. S. Department of Agriculture.

For the family of two or three, though, food costs rise. You'll pay 5 percent more to feed each person in a family of three. The figure will go up to 10 percent more for each member in a family of two. But it will cost the man or woman who lives alone about 20 percent more than the amount for each person in a typical family of four.

In considering these food costs, families should remember that they cover food only, not numerous other items purchased at the grocery store.

MANY CONVENIENCE FOODS SAVE MONEY

Convenience foods aren't necessarily more expensive than foods prepared at home.

In fact, American homemakers can save money as well as time by using some of the convenience foods, particularly those that are purchased as weekend specials. For example, when angel food and other cake mixes and canned soups are featured as weekend specials, they will cost consumers less than such foods prepared "from scratch." Frozen vegetables and frozen concentrated fruit juices are other convenience foods that are often better buys than the fresh products.

In a study comparing costs of 158 convenience foods with comparable home-prepared items, U. S. Department of Agriculture researchers found that 42 were less expensive than their home-prepared counterparts.

Instant coffee, concentrated orange juice and canned chicken chow mein were among the convenience foods found to be money-savers. One dollar of every hundred spent on food by

consumers is spent on instant coffee. The same number of servings from regular coffee would cost \$1.96.

For each \$100 spent on food in the grocery store, 68 cents goes for frozen orange juice concentrate, one of the most popular convenience foods. An equal amount of fresh orange juice prepared at home would cost \$1.39.

Canned chicken chow mein averages 66 cents for four servings, frozen chicken chow mein 85 cents. The same number of servings of the home-prepared product would cost \$1.02.

On the other hand, fresh ready-to-serve yeast rolls account for 10.6 cents out of every \$100 spent on food, while the ingredients to make an equal quantity of yeast rolls at home would cost 3.4 cents. However, many homemakers buy such convenience foods, even though they are more expensive, because of the time and skill required to prepare them at home.

CONSUMPTION OF FAT HASN'T GONE DOWN

We're eating more fat than ever.

Americans may have changed the kinds of fat they eat, but percentage of calories from fat in the average diet is at an all-time high. However, per capita consumption in pounds is about the same as it was 40 years ago.

Cholesterol- and diet-consciousness apparently has had little influence on the amount of fat people eat -- about 45 pounds per person. On the average, Americans get more than 40 percent of their total calories from fats. Yet intake from fats should be only 20 percent of the total calories per day.

A tendency to shift from solid to liquid fats and from animal to vegetable fats is about the only indication of fat consciousness.

Americans have cut down on table spreads, but they are using more salad and cooking oils and about the same amount of cooking fats as was the case 40 years ago.

Use of margarine reached an all-time high of 9.5 pounds per person in 1961 compared to 4 pounds in 1946, but use of butter has declined steadily. According to studies by economists of the U. S. Department of Agriculture, last year the average American ate 2.1 pounds more margarine than butter; in 1946, butter was the leader by 6.6 pounds. Butter consumption dropped from 17 pounds per person in 1940 to 7.4 pounds in 1961, a new record low.

Use of shortening has increased sharply from 9.1 pounds per person in 1945 to a record 13.2 pounds in 1961. But use of lard has declined to a low of 7.9 pounds per person.

Use of cooking and salad oils has increased steadily in the last 40 years, rising from 3.5 pounds to 11.2 pounds per person. This increase may be traced to greater consumer demand for salad and cooking oils and the growing use of oils in production of salad dressings, mayonnaise, potato chips, bakery food mixes and other prepared foods.

Equipment

WEIGH NEEDS BEFORE BUYING MAJOR APPLIANCES

A major appliance may serve your family for as many as 16 years -- or it may not be satisfactory for even six weeks.

The service you get from an appliance depends not only on the care you give it, but also on your care in selecting it. Before getting information or making purchasing decisions, first weigh your family's appliance needs, advises Florence Ehrenkranz, professor of home economics at the University of Minnesota.

She suggests three questions to ask yourself in considering the value of an appliance to your family:

1) Do you need the appliance? Will it be an efficient tool in your home? Will it contribute to more effective housekeeping?

2) If the appliance is not actually needed, what advantages does it offer your family? Will the appliance make your home safer or more enjoyable? Will it give you more space by replacing larger articles? Will it save you energy and thus give you more time to use in other ways?

3) What are the disadvantages of the appliance? Will it add an excessive amount of heat or noise in your home? Will the appliance use space that you do not want to give up? Will it complicate rather than aid your present homemaking methods and routines? Would it be better to save the money or to use it for another purpose? Remember, buying an appliance simply because it is "on sale" does not guarantee that it is a wise purchase.

If your answers to 1 and 2 outweigh your answers to 3, you are ready to select your appliance. If disadvantages are greater than needs and advantages, getting information and evaluating merchandise are unnecessary.

FOR SATISFACTION SELECT EQUIPMENT WITH CARE

How can the average consumer select major household equipment intelligently?

Buying an appliance is more than a money transaction; it should be a careful process calling for knowledge of essential features of the appliance and ability to evaluate its accessory conveniences.

So says Florence Ehrenkranz, professor of home economics at the University of Minnesota. She suggests some guides to follow in shopping for major appliances:

. Get as much information as possible about appliances currently on the market. Dif-

ferent models of washing machines, for example, have different cycles and temperatures, use different quantities of water, and occupy different amounts of space. Similar considerations apply to other appliances.

Sources of this information include books and bulletins available at libraries, consumer magazines, and publications of the Institute of Agriculture of the University.

. Talk with friends who own the appliance in which you are interested and learn what they like and don't like about a particular model and why. The "why" is important. You might find that a homemaker's dissatisfaction with an appliance is due to failure to follow manufacturer's recommendations for its use.

. Think over factors on which you need more information and pick out those that seem especially important to you.

. Visit stores that sell the appliance. While looking at appliances on display, remember the main points in which you are interested. Ask for a demonstration of the appliance, as well as printed materials -- specifications and the user's booklet, if possible.

Question the salesman. Get information on safety seals, warranties, servicing arrangements, and on initial installation and operating costs of the appliance.

. At home review and evaluate opinions and information you have collected. Confer with other members of the household. Decide what features are most important to your family.

. Make a check list for your final choice. Include safety seals and warranties, ease of use of the appliance, ease of cleaning and maintaining the appliance, space needed, design, durability, and reputation of the manufacturer and dealer for "standing behind" their products. Finally, weigh effectiveness of the appliance for the primary purpose for which you will buy it.

USE OF PORTABLE ELECTRIC APPLIANCES VERSUS RANGE

The bride and groom who find that buying a kitchen range is a strain on the budget may be able to get along for a time by using portable electric cooking appliances they received as wedding gifts.

Extension home improvement specialists at the University of Minnesota report that a study of home economics researchers in the U. S. Department of Agriculture showed that with four portable cooking appliances a homemaker can put meals on the table that would not expose the absence of a kitchen range. The appliances used in the study as a possible substitute

for the electric range and range utensils included an automatic electric frypan, 3- and 5-quart automatic saucepans and a portable oven.

Use of these portable appliances in making meals required more time but less electric energy than the ranges.

Though there is a limit to the number of dishes and amount of food which can be prepared for any one meal with these appliances, the researchers found they could be used to cook a variety of types of foods for complete meals. Among foods prepared in the experiments were fried chicken, a pot roast with vegetables, boiled potatoes, meringues, biscuits, a two-layer cake and cream filling.

Results of the exploratory study indicate that a combination of automatic utensils and a portable oven may be used satisfactorily in place of a range, depending on family size, amount of entertaining and the ability of the homemaker to plan well and to modify management practices. Such appliances may also be used in a summer cottage when the owner does not wish to install a three-wire 240-volt service entrance required for an electric range.

Most homemakers, however, will use one or more of these portable utensils to supplement the range for controlled heat cooking.

For the homemaker interested in cost comparisons, the home economists provide these figures:

A set of four electric appliances -- the frypan, two saucepans and a portable oven -- could run about \$116. Three similar utensils for on-top-of the range use, plus the cost of a 30-inch range, would probably cost anywhere from \$165 to \$275. Prices would vary with quality and special features.

HOW LONG WILL YOU KEEP MAJOR APPLIANCES?

If you buy used household appliances or home furnishings, you'll keep them about half as long as you would if they were new.

That is one of the findings of a study made by the Consumer and Food Economics Research

Division of the U. S. Department of Agriculture on the rates major appliances and home furnishings are replaced in American homes.

The study was conducted to get data to help consumers in planning ahead for the purchase of major equipment and furnishings. Mary Muller, extension home improvement specialist at the University of Minnesota, points out that the survey shows how long families keep appliances, not how long they actually last.

The rate at which appliances and home furnishings are replaced may vary, of course, as the income level, needs and preferences of families, and the design and construction of the products change.

Living room wool rugs, including wall-to-wall carpeting, one of the more expensive items in home furnishings, were replaced by families in the study after 14 years, used rugs after 10 years. However, in the study the estimate of service-life expectancy of rugs was limited to their use in the living room. In many cases, the rug may have been transferred to another room in the house and used much longer.

Longest service-life expectancy in household equipment goes to electric sewing machines, which are kept 24 years. A used electric sewing machine will be replaced in 16 years.

Sixteen years is the average length of time a family will keep an electric refrigerator or an electric or a gas range, purchased new. If these appliances are purchased second-hand, they will usually be replaced in half that time.

Automatic and semi-automatic washing machines are replaced in most homes in 9 to 11 years, the wringer and spin dryer type in 9 or 10 years. Families keep their used washing machines about 5 years.

Eighteen years is the service-life expectancy of an upright vacuum cleaner, 15 years of a tank type. Most families can count on keeping an automatic toaster 15 years, a nonautomatic approximately half as long.

Families in the study used their television sets 11 years. These were television sets alone or combination sets with radios and record players. Portable and color sets were not checked in the survey.

Family Life

COMFORT COUNTS AT THE TABLE

Comfort at the table may go a long way toward helping your pre-schooler develop desirable eating habits.

So says Charles Martin, extension family life education specialist, and Grace Brill, extension nutritionist at the University of Minnesota.

Sitting too high at the table or too far from the table increases the distance from plate to mouth and thus adds to the possibilities of dropping and spilling food, the two University staff members point out. Sitting too low on the other hand, makes it awkward and uncomfortable for your child to manage eating utensils which he is as yet not accustomed to.

Adults usually forget that eating with a fork or spoon requires skill and dexterity. The University specialists suggest that parents encourage self help with these tools even though spills result. But step in to help before your child gets too discouraged or angered when he can't manipulate a fork or spoon.

A dish with sides often helps a child learn to get food on his fork. But give your child plenty of time to learn to use eating utensils, Martin and Miss Brill caution. It may take several years to learn to use them with skill.

Since fingers are the tools with which children are most skilled, they can frequently be given such finger foods as small sandwiches, fruit wedges, meat and cheese strips, celery and carrot sticks.

To avoid milk spilling, give your child a glass scaled to his hand size and handling capacity. One that has a heavy bottom will resist tipping. After a child takes a drink, he usually puts his glass in the most convenient place -- the lower right hand side of the plate where it is easy to knock over. It's important for parents to keep the glass out of his way.

PLAN MEALS TO SUIT CHILDREN'S LIKES, DISLIKES

Are you concerned because little Johnny eats his meals with relish some days and on other days merely picks at his food?

There may be a number of reasons. For one thing, children have eating cycles which parents should be aware of. The time to introduce new and different foods is when your child is on his cycle's high point. This advice comes from Grace Brill, extension nutritionist, and Charles Martin, extension specialist in family life education at the University of Minnesota.

Children have food jags when they seem to like only one or two foods, the specialists say. However, this jag often disappears in a few days. But mothers should realize this fact when planning meals.

Colorful foods and foods served attractively rate high with children. That extra minute or two it takes to arrange an attractive plate pays off when children -- and adults, too -- sit down to the dinner table.

When arranging food on children's plates, be careful not to mix foods together. Most children prefer food prepared separately in different dishes over foods that combine a variety of foods.

Although most adults feel that steak is a real treat, children will take hamburger any day because less chewing is required for hamburgers.

Crisp foods such as carrot sticks and toast and soft foods like mashed potatoes and creamy puddings appeal to children. They like different food textures. But textures such as stringiness in beans or scum on cocoa are distasteful to them.

Because children are sensitive to strong food flavors, it's best to include only one strong flavored food in a meal. However, tastes of children differ, so you can vary common seasonings.

SNACKS CAN BE GOOD FOR YOU

Snack foods can play an important part in a teenager's diet.

Teenagers are perpetual snackers, since three meals a day often do not furnish enough of the foods they need. From 15 to 17 percent of their food intake is through these extra meals.

But too often snack foods contain "empty calories" -- that is, they contribute calories without any important nutrients, say extension nutritionists at the University of Minnesota.

Surveys show that many teenagers have diets that are inadequate for health and for the vitality and pep typical of this age group. Skimpy breakfasts and poorly chosen snack foods add to the problem. The less a teenage girl eats at breakfast, the more snacks she is likely to eat.

Much of the newest diet research points out that frequent nutritious nibbles are better than extra-large meals widely spread. If snacks are nutritious, they help to maintain good general and dental health.

Your body should have these foods every day: meat, fish, eggs or legumes; milk or milk products; vegetables; fruits; breads or cereals. Snacks should be chosen from these groups of

foods. They should be counted with the total daily calorie intake.

Here are some suggestions from extension nutritionists for snack foods for teenagers:

At home or for parties, serve meat or meat products dressed up as barbecues or chilburgers, hamburgers smothered in chili or roasted frankfurters stuffed with cheese and wrapped in bacon.

Milk shakes with ice cream and fresh fruit flavoring are delicious and nutritious. Or try making a punch with frozen orange juice and crushed fresh fruit blended with finely chopped ice.

Ice cream, milk, potato chips with dips and small sandwiches with meat or spreads are always good. And don't forget fresh fruit.

Try arranging a cheese, cold meat or fruit platter. The platter will decorate your table and will furnish tasty, appealing and nutritious snacks.

CHILDREN SHOULD HELP SELECT OWN CLOTHES

Let the youngsters help shop for their school clothes if you want to give them training in developing color preferences and standards of taste.

Thelma Baierl, extension clothing specialist at the University of Minnesota, suggests as a first step in such training that the mother choose two or three garments at the store in a similar style, quality and price range and let the child select from this group.

Oddity in dress contributes to self-consciousness and timidity. For that reason, parents should remember it is important for children to have clothes similar to those of their playmates so they have the feeling of belonging to the group. By recognizing this fact and selecting clothing accordingly, parents can help children make desired social adjustments.

When children are given the opportunity to select their own clothes, they enjoy them more and will usually take better care of them.

Though children will usually know the style and color of the clothes they want, it's still the mother's job to see that they fit properly. Miss Baierl gives a checklist to help mothers select comfortable clothes that fit well.

When buying school clothes, examine:

. Neckline. Is the collar low enough in front to be comfortable and snug enough in back so it will neither ride up nor slip down?

. Shoulders. Are they wide and roomy enough for free arm movement without binding, yet not too full for shoulder seams to stay in place?

. Sleeves. Are they roomy enough so they won't pull out with strain? Raglan sleeves are a better choice than set-in sleeves during years of rapid growth.

. Waistline. Slight looseness will allow for growth and longer wear. Elastic part of the way around the waist will help adjust the garment as the child grows.

. Length. Shirts and blouses should be long enough to tuck in and stay in. Look for generous hems in skirts. Avoid over-long slacks and trousers. Adjustable straps or suspenders will take care of needs for shortening or lengthening.

CHOOSE BACK-TO-SCHOOL FASHIONS WISELY

With back-to-school time not far away, August is a good time to consider selection and care of clothing.

In the next few weeks, many boys and girls, with their mothers, will be choosing clothing for school. Since clothing is a very definite part of a child's surroundings and it affects his moods and behavior, it's important for him to help in the selection, according to Thelma Baierl, extension clothing specialist at the University of Minnesota.

A child who likes his clothes will usually take better care of them. At the store parents may select two or three garments for the young child in a similar style, quality and price range and the child can choose from this group. Any more garments would only confuse him. Training such as this in the early years enables a teenager to choose his clothing wisely.

Conformity plays an important part in a school child's choice of clothing. Any oddity in dress makes a child self-conscious and timid. No child should be asked to wear dresses too long or too short or slacks too baggy or too tight. Miss Baierl says it's not always good economy to buy clothes that are too big at the start. During the years a child is growing rapidly, it's better to purchase fewer and inexpensive to medium-priced clothes -- the garments are more likely to be outworn before they're outgrown.

Mothers like easy-care clothes. Mothers' and children's wishes can be combined by choosing knits, corduroy, denim, Madras and wash-and-wear. They are all good fashion this year and easy to care for.

When a child starts school, he should have clothes that do not make it difficult for him to dress himself. For example, clothes should have front closings. Hard-to-close belts and buckles should be eliminated.

Before buying, check for sanforized or pre-shrunk labels with the percentage of shrinkage. Children outgrow their clothes fast enough without adding to the problem with garments that shrink.

PLAN ROOMS TO GROW WITH THE CHILD'S NEEDS

Rooms that grow with children allow for their "built-in" flexibility.

Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, gives some suggestions to help you plan for flexibility in rooms.

Currently, manufacturers are carrying out the idea of flexibility in baby and youth furniture. Parents can select from stylings which include modern, Danish modern, Early American, contemporary, French Provincial and Italian Directoire. Much of this furniture can grow with the child, with a slight change in usage or placement.

If you select inexpensive materials for backgrounds, you will be able to change the appearance of the room often. Clean, fresh colors in paint or wallpaper with narrow stripes, small check or diminutive conventional patterns are a good choice. Nursery rhyme characters tend to date the room, besides giving it a cluttered look. A cork board on one wall above a play table can hold cut-outs of things that interest the child from year to year.

Adjustable shelves fastened to the wall within the child's reach are handy to store fair-sized toys, dolls and big color books. Later on these shelves can be used for books and hobby equipment.

Upper and lower casement window curtains with a shirred valance are decorative and inexpensive. Bright colors lend gaiety to the room and can be made from inexpensive cotton material. Curtains can be changed easily as a child grows older.

HOW ARE YOUR CHILD'S EATING HABITS

If you think your pre-schooler has eating problems, the trouble may be that you've forgotten how your child grows and develops.

Many parents use adult standards to measure their children's eating habits. Charles Martin, extension family life education specialist at the University of Minnesota, points out that after a child reaches 2 years he grows

slowly until he is about 9. It's important to keep this fact in mind when serving food to this age group.

Martin and Grace Brill, extension nutritionist at the University of Minnesota, suggest that parents ask themselves these questions if they are concerned about a pre-school child's eating habits:

- . Are his servings larger than he needs?
- . Do between-meal snacks take the edge off his appetite?
- . Are meals served at regular times?
- . Is the child over-tired or over-hungry?
- . Is the child excited and keyed-up at meals?
- . Are mealtimes pleasant times?

If you expect your child to eat more than he needs or wants, you're in for trouble. If your child snacks too close to mealtime or is scolded or punished just before or during a meal, he may find it difficult to eat.

Encourage the child to eat, but don't let the issue develop into begging or bribery, the specialists suggest. After a reasonable time, remove his plate.

Time of eating is important because small children like routine. To prevent undue hunger, move mealtime ahead or have your child eat earlier.

Prepare the child for the meal by letting him know he will soon eat. Call him in from outside well in advance and encourage quiet activities to help him calm down before eating.

If your child finds mealtime a pleasant, enjoyable time, his appetite and habits will improve. That's why it's important to avoid discussing problems or disciplining children during meals.

Other suggestions to parents are given in a new University Agricultural Extension Service publication, extension folder 220, Food for Young Children. Copies are available from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1 or from county extension offices.

Food and Nutrition

FRUITS, VEGETABLES WILL HELP YOU WATCH WEIGHT

Fresh fruits and vegetables coming to market in abundance during summer can be a real friend to the weight watcher.

Fruits can substitute for pastries and other desserts with empty calories, extension nutritionists at the University of Minnesota point out. Foods with empty calories are those that contribute little in the way of vitamins, minerals or protein but do rate high in calories. Both fruits and vegetables, on the other hand, are low in calories but high in nutritional content.

Given below is a list of fruits and vegetables with their caloric content. Calories are for a half-cup portion, except where stated otherwise, served without added fat, sugar or sauce.

10 to 15 calories -- cabbage, snap beans, greens, cauliflower, celery, mushrooms, green peppers, kraut.

20 to 25 calories -- summer squash, asparagus, carrots, turnips, tomato juice, half a cantaloupe (5 inches in diameter).

30 to 40 calories -- Brussels sprouts, onions, one tomato, berries, cherries, raw fresh pineapple, one peach, plum.

40 to 50 calories -- grapes, one pear, half a white grapefruit.

55 to 60 calories -- three apricots, fresh, unsweetened canned or frozen orange juice, half a pink grapefruit, one medium orange.

70 calories -- one apple, apple juice.

75 to 80 calories -- one banana.

80 to 90 calories -- one-fourth avocado.

MODERATION IN VITAMINS AND MINERALS URGED

More moderation in eating habits and in intake of food supplements is recommended by a University of Minnesota nutritionist, Mrs. Margaret Doyle.

Overnutrition, regarded as a major nutrition problem in this country, is evident in the number of overweight men, women and children. But overnutrition has another aspect not generally considered, Mrs. Doyle said -- possible excesses in our intake of some of the vitamins and minerals.

Improved methods of food production, distribution and technology have provided abundant food supplies in this country. When individuals start supplementing an adequate diet with further food supplements in the form of vitamins and

minerals they may possibly be courting danger as well as wasting money, Mrs. Doyle maintains.

In the past, recommended intakes of vitamins, minerals and protein have been made on the theory of providing the amount that will take care of those with the greatest needs. But the time has come to "walk the middle road," taking into consideration also the individuals whose requirements are not great. In the case of certain vitamins and minerals we should be thinking in terms of possible excesses rather than only of deficiencies, Mrs. Doyle says.

She cited case histories reported in the Journal of the American Medical Association of a number of children who had suffered permanent bone damage as a result of excessive vitamin A intake in infancy and early childhood. In nearly every instance the mother had greatly exceeded the vitamin intake recommended by the physician, in one case giving a child three teaspoons instead of the prescribed three drops of vitamin preparation. Cases of excess intakes of vitamin D due to similar causes have also been reported.

Most individuals can supply all of their nutritional needs within the framework of a varied diet containing an assortment of dairy products, meats, vegetables, fruits and cereal products. Let your doctor prescribe the kind and amount of any additional nutrients, the University nutritionist suggested.

MANY WOMEN AND GIRLS HAVE POOR DIETS

Although as a nation Americans are consuming more foods of high nutritional value, the feminine half of the population has the poorest diets.

Mrs. Margaret Doyle, associate professor of home economics at the University of Minnesota, refers to this fact as "feminine food failings" or the poor eating habits of women as compared to men.

Calorie consciousness is one factor responsible for the poorer diets of women and girls. Many teen-age girls go on "fad" diets which are unbalanced and are detrimental to their health. Adolescence is a time of emotional instability which may affect their selection of food. Poor food intake often results, coupled with the fact that at this time more meals are eaten away from home.

Skipping breakfast or lunch and poor snack habits are other factors which contribute to the

poor dietary practices of women and girls. Consider snacks as part of the day's meals, Mrs. Doyle advises. Milk, fruit, ice cream and sandwiches of various kinds may add valuable nutrients, while candy bars or soft drinks will add only calories.

Calcium is one of the major deficiencies in the diets of women and girls. Because they think milk is a fattening food, girls and women often don't drink enough milk. However, girls need milk during periods of rapid growth and they also need to build up a reserve supply of calcium for the child-bearing years.

Since women and girls have lower caloric requirements than their male counterparts, they must eat more carefully to secure the basic foods. These foods are those which will pay high nutrient dividends in relation to caloric value. Plan the main part of your diet wisely from the four food groups: vegetable-fruit; milk; meat; and bread-cereal. If you follow the "Basic 4" plan, you will have a central core of foods supplying the basic requirements. However, for the average person, this should be supplemented with other foods.

BRIGHTEN MEALS WITH EGGS

Looking for a good buy? Then put a dozen eggs into your market basket.

Eggs are economical, protein-packed foods that can be made into hearty, appetizing main dishes and glamorous desserts.

They can star as meat substitutes for Lenten meals, as an early morning eye opener or a late evening snack. Or they can add a touch of glamour to an otherwise ordinary dessert.

Try different ways of preparing eggs for breakfast, and don't forget French toast. For other meals, serve omelets, souffles, custards, meringues and other family favorites featuring eggs. A good guide to follow in planning the day's meals is to allow two eggs per person, either as main dishes or in cooked or baked foods.

Eggs are one of nature's ready-packed foods. An egg is a sealed container of important nutrients. Extension nutritionists at the University of Minnesota say it provides a protein of highest quality; it is a source of vitamin A and contributes to the daily needs of B-vitamins and minerals. Yet this storehouse of nutrients yields only 80 calories.

Here are some tips to success in egg cookery:

- . Cook eggs and egg dishes at low temperatures. High heat toughens the protein in eggs.
- . Add hot liquids or mixtures to the beaten egg a little at a time.
- . For biggest volume, have eggs at room temperature before beating.
- . For custards and souffles, set the baking dish in a pan of hot water.

CITRUS FRUITS STILL GOOD BUY FOR VITAMIN C

In spite of rising prices, citrus fruits and juices are still your best buy for the vitamin C you need each day.

Extension nutritionists at the University of Minnesota explain that vitamin C is needed by every cell in the body, and since it cannot be stored, a new supply is required daily for optimum health and vitality. Vitamin C is essential for healthy gums and strong blood vessels. It helps build sound bones and teeth, aids in building resistance to many infections and helps in the healing of bruises and wounds.

Citrus fruits are the best natural source of this essential vitamin. A large orange or 6 ounces (3/4 cup) of orange juice, whether it is fresh, canned or reconstituted frozen concentrate, will provide the recommended allowances of vitamin C for the adult. Half a large fresh grapefruit or 6 ounces of grapefruit juice will provide slightly less vitamin C but will contribute substantially to daily needs.

Best vegetable sources of vitamin C are broccoli and green peppers. Raw cabbage is a fair source. Although tomato juice is also a fair source, it will take twice as much tomato juice as orange juice to provide the same amount of vitamin C.

A comparison of prices of the amount of foods needed to meet vitamin C requirements shows that canned grapefruit juice, canned orange juice and reconstituted orange juice concentrate are still the cheapest sources of vitamin C, the University nutritionists said.

Here are some comparative costs of foods, based on average retail prices in early January, with amounts needed to meet adult vitamin C requirements: 6 ounces canned grapefruit juice, \$.03; 6 ounces canned orange juice, \$.045; 6 ounces reconstituted orange juice, \$.06; 6 ounces fresh orange juice, \$.105; 8 ounces canned grapefruit sections, \$.11; 15 ounces canned tomato juice, \$.09; 12 ounces canned tomatoes, \$.12; 8 ounces fresh cabbage, \$.08.

EXERCISE AND WATCH CALORIES FOR TRIM FIGURE

Want a trim figure?

Then pay attention both to exercise and the food you eat. Your exercise and physical activity will affect the amount of food you should eat to stay trim.

Energy in the body is received from food in the form of calories. You burn energy when you exercise; thus you burn calories.

Your height, weight, and body build determine the number of calories you will need to operate your body properly, say extension nutritionists at the University of Minnesota.

When you eat food that gives more calories than your body uses for energy, the excess or "left over" will be stored as extra fat. When you supply fewer calories from food than your body uses for energy, the stored fat will be used to make up the difference.

Exercise uses calories. Every action takes energy. One pound of body fat supplies about 3,500 calories when it is used for energy. Here are some of the common activities and their caloric cost per minute: walking upstairs, 17.5; swimming, 10.6; bowling, 7.1; walking, 4.6; making bed, 4.6; dancing, 3.5; sitting, 1.2

You can burn up more calories by increasing your exercise. Reduction in calories will also help you to lose weight. You can cut down the calories you use by decreasing excessive or exhausting activities.

The number of calories you use each day in addition to those spent to keep the body functioning depends on the kind of work you do and the kind of leisure-time activities you engage in.

Both degree of physical exertion required by each task or activity and the length of time spent on it determine the amount of energy used. Obviously, swimming, skiing or skating for an hour requires more calories than studying at a desk for an hour.

CONSUMERS SCORE HAMS IN SPECIAL STUDY

Which are more flavorful and tender -- high-moisture or low-moisture hams?

Two studies by taste panels were conducted at the University of Minnesota's Institute of Agriculture to answer these questions and to determine which type of ham was preferred.

High-moisture hams were chosen by some of the tasters because of their juiciness, low-moisture hams by others because of their flavor. Tenderness was not an important difference in taste choices.

The first study showed a slight preference for higher moisture hams. In this study panel members evaluated flavor, tenderness, texture and juiciness. Some panel members apparently preferred moist hams with less flavor; others preferred less moist hams with more pronounced flavor. Juiciness was checked most often as a reason for preference of the high-moisture hams. Flavor was checked most often for low-moisture hams.

In the second study the panel as a whole did not prefer one type of ham over the other.

The study in hams was undertaken because of the recent controversy over the amount of added moisture that should be allowed by state or federally inspected meat processing plants. Little information is available about the acceptability of hams with and without added moisture, according to W. J. Aunan, associate professor of animal husbandry, and Mrs. Shirley T. Munson, assistant professor in charge of the food processing laboratory, University of Minnesota.

Ten pairs of hams were processed for the first study and 11 for the second. In the studies one of a pair of hams from one hog was pumped to 110 percent and the other to 120 percent of green weight with curing solution. Both hams were artery injected with the same curing solution, cured in the same vat and smoked at the same temperature the same length of time. The hams were cooked in pre-heated ovens at 325° until internal temperatures reached 160° F.

The study is reported in the fall issue (1963) of Farm and Home Science, University Agricultural Experiment Station publication.

A GOOD DIET INCLUDES FOUR BASIC GROUPS

Food fads come and go, but the same foods remain basic to a healthful, balanced diet for everyone from astronauts to farm workers, business and professional people, homemakers, teenagers and children.

The best guide to a good diet for everyone is found in the four basic food groups, say extension nutritionists at the University of Minnesota.

Each day include in your family meals servings from the four food groups; two to four glasses of milk, two servings of meat, fish or eggs; four servings of fruits and vegetables; and four of bread or cereal. These foods will supply you and your family with proteins for growth and for repair of body tissues; minerals, vitamins, fats and carbohydrates for normal body functions. To round out the meals and to satisfy special cravings, you'll want to add some fats, sugars and perhaps some baked goods or other grain products.

Everyone needs milk each day. However, you can substitute cheese or ice cream for some of the milk and count the milk you use in casseroles, puddings or creamed vegetables. Children should have three to four 8-ounce glasses of milk; teenagers and pregnant women four or more; nursing mothers, six or more; and all other adults, two or more.

Beef, pork, lamb, veal and poultry are among the meats included in the meat group. But you can also include liver, eggs, fish and shellfish. Dry beans, peas, nuts or peanut butter can serve as alternates for one of the meat servings.

Select your fruits and vegetables carefully. Be sure to include in your four or more servings at least one food rich in vitamin C like cantaloupe, oranges, grapefruit, fresh strawberries, broccoli or peppers. Or you'll get approximately the same amount of vitamin C from two servings of honeydew melon, watermelon, tangerines, asparagus, raw cabbage, tomatoes, potatoes cooked in their jackets or greens.

Also include a serving of dark green and yellow vegetables and such fruits as apricots and cantaloupe that provide vitamin A.

Check the label when you buy bread or cereals to be sure they are enriched whole grain

or restored so you get the benefit of the B vitamins and iron.

BETTER NUTRITION HAS MADE THE YOUTH TALLER

Better diets, along with higher incomes and better medical care, have produced sturdier and taller Americans.

Today's 9-year-old boy is an inch or so taller than his father was at that age.

At manhood he stands 2 inches taller than the average young man did at the turn of the century -- 5 feet 10 inches compared to 5 feet 8 inches. His weight is about 20 pounds more.

Women, too, are taller. They average about 5 feet 4 inches today compared to 5 feet 2 inches in 1900. But the women, watchful of their calories, weigh less for their height than their grandmothers did by some 6 to 8 pounds.

The rising percentage of six-footers among college freshmen is a reflection of increased average height of the U. S. population. In 1883 only about 4 percent of the young men entering Amherst and Yale were 6 feet and over. By 1915 the percentage had risen to 10 percent, and in 1956 and 1957 nearly a third of the freshman classes at both schools measured at least 6 feet.

Comparisons of college women with their mothers show that the younger generation in recent years has averaged about an inch taller than the older generation.

The gradual increase in stature of the U. S. population, U. S. Department of Agriculture scientists believe, is due to a combination of many factors, including improved knowledge of nutrition, abundance of food in this country and steady improvement in the economic condition of most of the people, with the result that diets are better. Advances in medical care and sanitation are also making it possible for more people to achieve their inherited growth potential.

HOW DO YOU BUILD YOUR FIGURE?

Dissatisfied with your figure?

Remember that your body grows in spurts, say extension nutritionists at the University of Minnesota.

Tall or short, big or little, you inherit your body build from your ancestors. Your body build is the framework on which you develop your figure.

You build your figure in your teens, but you build it gradually. Before you acquire a desirable poundage in the right places, with curves where they were meant to be, you may go through stages where there is too much of you in some spots and not enough in others. These stages, though, are usually temporary.

When girls are about 11, they start their fast-growing years. When they are between 11 and 14 years they are taller than boys of the same age -- usually for the only time in their lives. Girls are heavier than boys then, too. When girls are 12 they're likely to make their greatest gain in height. After girls are 16 they don't grow much taller. Once girls are 18 they don't add much more weight, unless they add too much fat.

As your body grows it needs energy. Energy is received from food in the form of calories. You want to supply enough calories to meet your operating and growth needs, but not more than you use.

When you eat food that gives more calories than your body uses for energy, the excess will be stored as extra fat -- sometimes where you want it least and where it shows the most. When you supply fewer calories from food than your body uses for energy, the stored fat will be used to make up the difference.

HANDLE FOODS CAREFULLY TO RETAIN VITAMIN C

To get the most for your money in vitamin C-rich fruits and vegetables, handle and cook them properly.

Vitamin C is lost more quickly from most foods than other important nutrients are, according to Verna Mikesh, extension nutritionist at the University of Minnesota. This vitamin -- one we need to replenish every day -- is destroyed by high heat. Prolonged exposure to the air also results in some loss.

Vitamin C-rich fruits and vegetables include grapefruit, oranges, citrus juices, tomatoes, tomato juice, cantaloupe, strawberries, cabbage, green peppers, broccoli, spinach.

Here are some suggestions from the University nutritionist to preserve as much vitamin C as possible in fruits and vegetables:

- . Handle vegetables carefully to avoid bruising. In cutting vegetables, use sharp knives.

- . Cut carrots, celery, green peppers, cabbage and other raw vegetables just before serving.

- . Keep citrus juices and greens covered and refrigerated.

- . Avoid prolonged storage. Greens will lose about half their vitamin C after five days' storage. Potatoes will lose a third or more of their vitamin C by spring. Fresh cabbage will lose about a fourth of its vitamin C after two months of refrigerated storage.

- . Avoid prolonged cooking and heating of any fruit or vegetable. Pour the liquid off commercially canned vegetables, boil quickly to reduce the volume and just heat the vegetables through.

- . Have the water boiling before adding vegetables to start the cooking rapidly.

- . Store frozen foods at 0° F. or lower.

- . Store canned foods in a cool place.

BETTER BREAKFASTS FOR TEENAGERS

If Americans are well fed, why aren't American teenagers getting their daily food needs?

One answer, says Grace Brill, extension nutritionist at the University of Minnesota, is that they're skimping on or actually skipping breakfast.

Research on teenage diets reveals that the older the child, the poorer the diet. From childhood to teen-age, the percentage of young people with poor diets increases sharply. Six out of 10 girls and four out of 10 boys have poor diets. The teenage girl is the poorest fed member of the family.

One reason the teenage girl is not as well fed as the teenage boy is that she needs about one-third fewer calories. Teenage girls need 2,400-2,600 calories; teenage boys, 3,100-

3,600, according to the National Research Council recommended daily dietary allowances.

The fewer calories you eat, the more important it is to make all of them count, Miss Brill says. Your diet must contain all the needed nutrients for health and vitality. If you skip breakfast, about a fourth of these nutrients are lost from your diet and can't be replaced.

Don't worry about gaining weight if you eat a good breakfast, Miss Brill says. If you're not hungry you won't be so tempted to snack between meals. Breakfast is the energy-supplying meal that keeps your body in tip-top running order. It keeps you looking and feeling alert and attractive and prevents an 11 o'clock slump.

A good breakfast supplies nutrients lacking in teenage diets: vitamin C in fruit or juice; calcium in milk; B vitamins and iron in cereal products and eggs.

September, "Better Breakfast Month," is a good time to get the good breakfast habit.

Freezing

GET FREEZER READY FOR NEW CROPS OF VEGETABLES, FRUIT

Defrosting the home freezer is one of those jobs most homemakers put off as long as possible -- but it's quality insurance for the vegetables and fruit you plan to freeze.

Allowing too thick a layer of frost to accumulate reduces the efficiency of operation and utilizes too much space, Mrs. Shirley Munson, in charge of the University of Minnesota food processing laboratory, points out. Another reason for defrosting and cleaning out the freezer in spring is to take inventory of foods that are stored, use those that have been stored longest and organize the freezer for the new crops of vegetables and fruits.

When frost becomes 1/3 inch thick, it's time to scrape it from chest-type units, Mrs. Munson says. When the frost is thicker, the chest should be defrosted completely. Since scraping the frost is not as easy with upright models, complete defrosting may be necessary.

For quick methods of defrosting the freezer, follow these suggestions from Mrs. Munson:

Disconnect the freezer. Remove the food, placing it in a paper carton and covering it with a thick blanket to prevent the food from thawing. Place large bath towels in the bottom of the freezer to loosen the ice and then scrape it off with a wooden spoon, plastic scraper or rubber spatula. Or hasten thawing by placing pans of hot water in the freezer and closing the lid or door for half an hour or so.

After defrosting the freezer, wash the inside with warm baking soda solution (3 tablespoons to 1 quart water) or with a synthetic detergent solution. Wipe dry, turn on the electricity and replace the food after remaining moisture has frozen.

Covering shelves of upright freezers with aluminum foil will make frost removal easier next time.

FREEZING RHUBARB CAN PUT SPRING IN WINTER MEALS

When icy winds are blowing next winter, you can bring a touch of spring into your meals with a rhubarb pie.

Freezing some of the tender stalks of rhubarb from your garden before the hot weather sets in will give you a supply you can draw upon next winter for rhubarb pie, cake or sauce.

One of the advantages of freezing rhubarb is that it's so easy to process. Simply wash the stalks, cut off any blemished pieces and woody

ends. Then cut it up and package it in polyethylene bags.

Mrs. Shirley T. Munson, in charge of the University of Minnesota food processing laboratory, suggests freezing rhubarb in the quantities you will use in pies or in cake or for sauce. If desired, you can also pack it with the amount of sugar you would use. For sauce, the flavor is a little better if the rhubarb is packed in a sugar syrup, using 3½ cups of sugar to 4 cups of water.

When you use the frozen rhubarb for pies, be sure to thaw it partially before filling the bottom crust. If the rhubarb is still frozen it may make the bottom crust soggy. If there's a great deal of juice, you may have to pour off some of it.

CONSIDER FREEZING QUALITY WHEN YOU PLANT

Freezing vegetables from your home garden can be a satisfying experience if you plant varieties that freeze well.

But disappointment often results after freezing such vegetables as green beans because the variety was not adapted to freezing, according to Mrs. Shirley T. Munson, in charge of the University of Minnesota's food processing laboratory.

Extensive testing of vegetables in the food processing laboratory has shown that some varieties freeze much more successfully than others. For that reason, Mrs. Munson suggests that if you want good quality from the vegetables you freeze, select for planting varieties that freeze well.

A list of dependable varieties recommended for Minnesota gardens is given in a University of Minnesota Agricultural Extension Service publication, 1963 Vegetable Varieties, Extension Folder 154. Varieties starred on that list are suitable for freezing. The publication is available, free of charge, from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

Here are some of the vegetable varieties suggested for freezing, on the basis of tests in the University's food processing laboratory: green bush beans -- Tendergreen, Topcrop, Tendercrop; yellow bush beans -- Cherokee, Pencil Pod Black Wax, Kinghorn Wax; pole beans -- Kentucky Wonder, Blue Lake; broccoli -- Green Mountain, Waltham 29; Brussels sprouts -- Catskill, Jade Cross; sweet corn -- Sugar and Gold, various Golden Bantam types; peas -- Little Marvel, Laxtons Progress, Perfection; rhubarb -- Valentine, MacDonald Crimson, Chipman's Canada Red.

PACKAGE FISH WELL FOR FREEZING

If you plan to freeze some of the fish you catch, wrap it well to preserve its quality and don't keep it too long.

Since fish has a relatively short storage life, fatty fish especially--like walleyes--should be used within six to nine months. Nonfatty fish like sunfish, crappies, bass or pike may keep satisfactorily up to a year. Fatty fish, however, including lake herring, lake trout and pink salmon, lose quality after about 4 months when stored at 0° F. A temperature of -10° F. is much better.

Mrs. Shirley Munson, in charge of the University of Minnesota's food processing laboratory, gives these directions for freezing fish.

Prepare fish for freezing as for table use. Scale, eviscerate, remove head and fins, wash thoroughly and drain. Freeze small fish whole; fillet or steak large fish. Package in heavy-duty aluminum foil.

Small fish and fillets may be kept successfully by freezing in water. A disadvantage of this method, according to Mrs. Munson, is that you are freezing extra bulk. However, if you wish to use this method, put the fish in a pan, fill pan with water and freeze. Then remove the block of ice from the pan, slip the block into a plastic bag or wrap it in locker paper.

Be sure to label and date all packages of fish. Store fish in the coldest part of the freezer -- near the bottom of chest types or directly on refrigerated shelves of upright models.

HOW LONG WILL FROZEN FOODS KEEP?

How long will the foods keep which you put into the freezer at holiday time?

That depends primarily on three factors, according to Mrs. Shirley T. Munson, in charge of the food processing laboratory at the University of Minnesota:

- . The temperature of the freezer.
- . The packaging material.
- . The type of food and the way it is

handled.

To maintain good quality of stored foods, the temperature of the freezer should be 0° F. or lower.

Research in the University food processing laboratory shows that polyethylene bags give good protection for low-fat foods such as bread, vegetables and poultry. However, because polyethylene is not oxygen-proof, these bags are not satisfactory for fatty-type foods. Heavy-duty aluminum foil or saran-type films are preferable for such foods as beef, pork, fish and shellfish.

Storage life of cooked foods -- such as the casserole made from leftover turkey -- is relatively short. A rapid turnover is the secret to success in keeping cooked foods because many of these foods lose their distinctive flavor after 3 to 4 months in the home freezer. Fur-

thermore, most cooked foods take up too much storage space.

Mrs. Munson recommends these maximum storage periods at 0° F. for some of the foods homemakers are asking about: 12-18 months, candies; 9-12 months, unsalted nuts, cookies (unfrosted), fruit cake, yeast breads, yeast rolls, stewing chicken (uncooked), turkeys; 6 months, pre-cooked foods in sauce or gravy, salted nuts, cheese in small lots; 4 months, baked pies; 2-3 months, quick breads, cooked peeled shrimp, unsliced bacon; less than 1 month, sandwiches, chiffon pies.

SHOPPERS CAN PROTECT QUALITY OF FROZEN FOODS

Consumers as well as retailers have a responsibility in keeping frozen foods at top quality.

As a shopper you can protect the quality of the frozen foods you buy by keeping them cold enough and using them soon enough. But you can also check on poor handling of these foods at the store. Most common cause of quality loss in frozen foods is storage at too high temperatures, whether it's in the frozen food case at the retail store or in the home freezer.

To get the most for your money when you buy frozen foods, Mrs. Shirley T. Munson, in charge of the University of Minnesota food processing laboratory, has these suggestions:

. Before you buy, check the frozen food case. The packages should be stacked no higher than the fill line. Sometimes a thermometer is inside so you can check the temperature. It should be 0° F. or lower.

. Choose packages that are clean and firm. Avoid misshapen packages, which may indicate that the food was thawed and refrozen. Make sure packages are not torn, crushed or juice-stained. If frozen food is exposed or poorly packaged, it dries out and develops off-flavors quickly.

. Put frozen foods at the bottom of your shopping list so you select them last, just before you go through the check-out line. Ask the checker to place your frozen foods in an insulated or a double grocery bag, especially if the weather is warm.

. Put the frozen foods into the freezer as soon as you get home. If the temperature of your home freezer or freezing compartment is above 0° F., use the frozen foods within a few days.

SPEED IMPORTANT IN FREEZING BEANS

Speed in processing--from harvesting to freezing--is a key factor in successful freezing of beans.

Pick young, tender beans while the seeds are small. Discard any off-colored or blem-

ashed beans, and wash the remaining beans in cold running water. Snip off tips and sort for size, cutting beans into about $1\frac{1}{2}$ inch lengths. You can freeze small beans whole.

Scalding the beans is a must before freezing. Use 1 gallon of water for each pound of vegetables. There are approximately 4 cups of cut beans to a pound. Place the prepared vegetables in a wire basket or large, loose cheesecloth bag and submerge in a large kettle, bringing the water to a rolling boil. Start counting the time as soon as the vegetables are put into the boiling water. Scald beans for $3\frac{1}{2}$ minutes. Then chill in iced or cold water, drain, package and freeze immediately.

Canning beans is easy, too. They should be processed in a pressure canner since they are a low-acid food, according to extension nutritionists at the University. They recommend using the raw pack method, which saves time and energy, gives a fresher flavor and better color.

To can beans by the raw pack method, follow these directions:

Wash, trim and cut beans into 1-inch pieces. Pack raw beans tightly into the jar to $\frac{1}{2}$ inch of the top. Add $\frac{1}{2}$ teaspoon salt to pints, 1 teaspoon to quarts. Cover with boiling water, leaving $\frac{1}{2}$ inch space at top of jar. Adjust jar lids and process in pressure canner at 10 pounds pressure, 20 minutes for pints, 25 minutes for quarts. As soon as you remove jars from canner, complete seals if closures are not self-sealing.

For further information on freezing and canning beans, get a copy of Ext. Folder 156, Freezing Fruits and Vegetables and Ext. Folder 100, Home Canning Fruits and Vegetables from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

EARLY VARIETIES OF PEACHES TOP QUALITY FOR FREEZING

You can enjoy peaches throughout the year if you freeze them soon.

July (Early) Elberta peaches are a top freezing variety, according to Mrs. Shirley T. Munson, in charge of the food processing laboratory at the University of Minnesota.

For freezing, choose well ripened fruits, slightly riper than for canning, Mrs. Munson suggests. They shouldn't be soft or mushy, however. Unripened, shipped-in peaches ripen best when held at about 75° F.

Peaches are best frozen in a sugar sirup. Prepare the sirup by adding 3 cups of sugar to 1 quart of cold water plus $\frac{1}{2}$ teaspoon pure ascorbic acid. The ascorbic acid prevents peaches from darkening. If you have a 16-pound crate of peaches, use 3 quarts of water and 9 cups of sugar for 24 pints.

An easy way to peel the peaches is to dip only three or four peaches at one time into boiling water for 15 to 20 seconds until the skins loosen. Then chill quickly in iced cold water, peel, halve and remove the pit. Work as rapidly as possible with only a few peaches so they

will not darken before you get them into the sirup.

Fill containers about one-third full of the prepared sirup and pack halves or slices directly into the sirup. Completely cover the fruit with sirup, leaving about $\frac{1}{2}$ inch for expansion. Submerge the top slices in the sirup by placing a generous piece of crumpled locker paper under the lid to keep them from darkening. Use glass or other airtight containers for better retention of color and flavor. Mrs. Munson recommends that you keep your peaches at 0° F. for not more than a year to a year and one half.

If it isn't possible to pack the peaches immediately, the cut fruit may be submerged for a short time in cold water containing $1\frac{1}{4}$ level teaspoons of ascorbic acid per gallon of water to prevent darkening. You can also use this treatment on sliced peaches for table use.

If ascorbic acid isn't available, pack peaches in glass containers using a sugar sirup made with 4 cups of sugar per quart of water.

Extension Folder 156, Freezing Fruits and Vegetables, gives further information. Get a copy at your county extension office or from Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1.

FREEZING IS GOOD WAY TO PRESERVE APPLES

If you're wondering how to store all the apples from the tree in the backyard, there's an easy answer: freeze some of them.

Apples frozen for pie or sauce will keep a year or longer, according to Mrs. Shirley T. Munson, assistant professor in charge of the University of Minnesota food processing laboratory. She points out, too, that many homemakers like to make apple pies now and freeze them for later use. Laboratory tests show that baked pies are more satisfactory than unbaked pies and will keep longer -- at least six months.

Take your choice among three different methods of freezing apples recommended by Mrs. Munson:

1. If apples are in perfect condition and if you have room in your home freezer, wash the fruit and package six to eight apples in a plastic bag without peeling or slicing them. To use these frozen apples for pie or sauce, run cold water over them, one at a time, peel while they are still frozen, slice and use immediately.

2. Peel and slice apples. To prevent them from darkening, submerge the slices for 5 minutes in a sodium bisulfite solution made by dissolving 1 teaspoonful of sodium bisulfite (U. S. P. grade) in a gallon of cold water. Mix the solution in a glass, earthenware, enamel or stainless steel container. This amount will treat about $\frac{1}{2}$ bushel of apples. Avoid making the solution any stronger, since it may toughen the apples. Do not use sodium sulfide or sodium sulfite.

After the 5-minute dip, drain the slices and pack in sugar, using 1 cup sugar to 10 or 12 cups of apples, or 1 pound of sugar to 5 to 7 pounds of apples. Sprinkle the sugar evenly

over the slices, allow to stand for a few minutes and then stir carefully until each slice is coated with sugar before filling the containers. Freeze. To use these apples for pie, defrost them partially and drain off some of the juice.

3. Peel and slice apples and soak for 15 minutes in a weak brine solution, using $\frac{1}{2}$ cup of salt to each gallon of water. Drain the slices and pack them in freezer containers, covering them with a sugar syrup made in the proportion of 2 cups sugar, $\frac{1}{2}$ teaspoon ascorbic acid and 1 quart of cold water. Freeze. Drain off all the sugar syrup and defrost the apples partially before using them in pie.

CORN LOSES FLAVOR IF NOT PROCESSED QUICKLY

Speed from the garden to the home freezer is one of the most important rules to observe when it comes to freezing sweet corn.

Mrs. Shirley T. Munson, in charge of the food processing laboratory at the University of Minnesota, says rapid processing is important because corn quickly loses flavor when it is held for any length of time after picking, unless it is refrigerated.

For top quality, corn must also be at just the right stage of maturity for best eating. If corn is picked when immature, it will be watery when cooked; if it is too mature, it will be doughy. Corn can usually be considered at the proper stage of maturity if milk spurts out freely when the thumbnail is pressed into a

kernel. Harvest the corn in early morning if the weather is hot.

Tests at the University of Minnesota food processing laboratory indicate that Golden Bantam types are best for freezing.

Scalding is perhaps the most important step in preparing sweet corn for freezing, Mrs. Munson says. By inactivating the enzymes, scalding preserves the fresh quality of corn as well as its color and vitamin content and lengthens storage life.

For scalding, it's best to use a large kettle that will hold at least 12 to 15 quarts of water. Bring the water to a rolling boil. Place the husked corn in a wire basket or large cheesecloth bag and submerge it in the boiling water. Keep the kettle covered during the scalding period and have the heat on high. Always count time from the second the vegetable is put into the boiling water.

Whole kernel corn to be cut from the cob should be scalded $4\frac{1}{2}$ minutes before cutting. For corn to be left on the cob, follow this schedule: Scald 24 midget ears or 14 small ears in 12 quarts of water for 8 minutes; 14 small-to-medium ears for 8 minutes; 10 medium-to-large ears in 12 quarts of water for 11 minutes. If corn is scalded for too short a time, it may have a cobby taste.

Chill the corn quickly in cold running water or iced water for at least the same length of time as given for scalding. Then drain, package and freeze.

To prepare frozen corn on the cob for serving, partially thaw it first and allow from 6 to 8 minutes for four to six ears, counting time from the second the corn is put into the boiling water.

Home Furnishings

GOOD CARE IMPORTANT IN RUG APPEARANCE

Good care is basic if you want to get longer service from your rugs and carpets and keep them looking attractive.

Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, says that proper rug care includes regular vacuuming, occasional surface brightening, professional cleaning and quick stain removal.

Regular vacuuming is the most important step in keeping carpets and rugs at the peak of beauty. Cleaning even seldom-used areas regularly -- once a week, for example -- prevents atmospheric dust from becoming imbedded in carpet fibers and makes the job of regular upkeep easier. Carpet sweepers are helpful for daily light cleaning, but a vacuum cleaner is essential in removing below-surface soil.

To prevent matting from regular traffic lanes, turn area rugs occasionally and rearrange furniture once or twice a year on wall-to-wall carpeting.

When the carpet is dulled by an accumulation of soil which isn't removed by vacuuming, home-cleaning methods will brighten the carpet surface.

Professional cleaning by a reliable carpet and rug cleaning establishment will be necessary periodically, however, to remove all the soil imbedded in carpets and rugs. A rug can be cleaned most thoroughly in a professional cleaning plant, but many professional cleaners are equipped to go into homes for on-location cleaning of wall-to-wall carpeting.

Once the rug or carpet has been cleaned, prevent spills from becoming permanent stains by treating them immediately. When dry, many stains become permanent, Mrs. Zabel says.

SPEED IS KEY TO STAIN REMOVAL ON RUGS

Quick action is one of the keys to avoiding damage when something is spilled on carpets and rugs.

If mopped up and treated immediately, many spills can be removed without leaving any trace of discoloration. However, they may become permanent stains when they dry, according to Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota. Treating a stain with the wrong type of cleaner can also set it permanently.

Damage from stains on rugs can be kept to a minimum, Mrs. Zabel says, if homemakers follow these three rules:

1. Remove spots or stains before they dry.
2. Have necessary cleaning equipment on hand.
3. Try to identify what caused the stain and remove it with the proper material.

Cleaning materials for most spots are simple: water, a detergent used for fine fabrics, white vinegar and a dry-cleaning fluid. These materials may be used safely, without damaging carpets.

For non-greasy stains, add a teaspoonful of mild detergent and a teaspoonful of white vinegar to a quart of warm water. For greasy stains, use a grease solvent such as any dry-cleaning fluid.

In removing any spot on a carpet, use the cleaning material sparingly on a cloth or sponge. Never pour it directly on the carpet. Sponge the spot lightly, working from the center irregularly toward the outside edges so there will be less danger of leaving rings. Avoid getting the carpet too wet.

If you are unable to identify a spot on your rug, use this cleaning procedure: Blot up liquids with a clean white cloth or other absorbent material; scrape up semi-solids with a knife or spatula. Apply the detergent-vinegar-water solution, using a clean cloth. At intervals blot with a dry, clean cloth to absorb excess moisture. Dry the carpet further by using a fan or some other means of circulating air. If the water solution seems to remove part of the stain, it may be wise to repeat it. If not, apply a dry-cleaning fluid. Dry the carpet and then brush the pile gently to restore the original texture.

HERE'S HOW TO REMOVE SPECIFIC STAINS ON RUG

Water and dry-cleaning fluid are the best home remedies for removing spots from rugs.

Important as it is to choose the proper cleaner to remove specific spots, quick action in removing spills will often determine whether a stain will be permanent, says Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota.

Stains fall into three categories: greasy, non-greasy and combination types.

Remove greasy stains by sponging with a dry-cleaning fluid, Mrs. Zabel suggests. Allow to dry and then repeat if necessary.

Sponge non-greasy stains with cool water. If the stain remains, use a solution of water, mild detergent and white vinegar in the proportion of 1 teaspoonful of detergent and 1 teaspoonful of vinegar to a quart of warm water.

Treat combination stains, caused by both greasy and non-greasy substances, first with water, then with grease solvent.

When using dry-cleaning fluid, use it only in small amounts and in a well ventilated room, Mrs. Zabel cautions. Any grease solvent or dry-cleaning fluid presents a hazard to the user. Avoid breathing the vapors, and wash off any solvent spilled on the skin. Do not use flammable liquids where they could be ignited by flames, pilot lights or electric sparks.

Whether you are using a dry-cleaning fluid, water or other solvent, use only enough to dampen the stain, Mrs. Zabel advises. Otherwise the solvent will spread the stain beyond the outer edge.

Here are Mrs. Zabel's suggestions for treating some common stains:

. Fruit and fruit juices. Blot up with damp cloth. Sponge several times with clear warm water. Follow with detergent solution. Rinse.

. Milk and milk products. Sponge with detergent solution, rinse.

. Ballpoint ink: Sponge with acetone. Use amyl acetate on acetate, Arnel, Dynel and Verel.

. Chocolate and cocoa. Sponge with lukewarm detergent solution, rinse. Sponge chocolate stain with solvent afterward to remove any grease.

TIPS ON BUYING TERRY TOWELS

Buying terry towels at white sales?

Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, suggests that you check a number of points to be sure of getting both quality and satisfaction with your purchase.

First, feel the towel. It should be soft to the touch.

Next, examine the depth of the towel and the closeness of the loops. A lightweight towel with loops that are not close together will become sleazy after laundering and will give poor service. Very long loops are likely to catch in objects and to pull loose.

Check hems and selvages. Hems should be well turned under, sewed with close, small stitches and securely fastened. Reinforcement of the selvege with Dacron or nylon adds durability. Be sure that decorative borders are guaranteed not to shrink. Appearance of a towel is often ruined after laundering because the border has shrunk.

Check washcloths to see that they are cut on the grain.

You'll get greater satisfaction from your purchases if you select different sizes of towels for different purposes and for different members of the family, Mrs. Zabel says. For example, buy small sizes for hand towels. For bath use, smaller sizes, too, are more suitable for children in the family than the large, heavier towels.

If getting clothes white is one of your problems, buy colored rather than white towels.

HERE ARE GUIDES TO SELECTING ACCESSORIES

You will find long-lasting satisfaction and pleasure when you select accessories for your room or any part of your home if you choose those that are beautiful in line, shape, texture, proportion and color.

4-H'ers enrolled in the 4-H home improvement-family living project have some specific guide lines to help them in choosing an appropriate accessory.

They ask themselves these questions when selecting an accessory for the home:

. Is it supposed to be useful? Most accessories serve a useful purpose but may also have true beauty. However, some give their owner pleasure and satisfaction without being useful.

. For what purpose is it used and what is required of it? Useful accessories must serve their purpose.

. Is it beautiful in color? Color in accessories gives sparkle to your room. If accessories are used as a unit, their color should blend well together and with the rest of the room.

. Does it have pleasing lines and shape? Does it have good size and proportion? Extremes in sizes of accessories used together create unfortunate comparisons.

. Does it have lasting appeal? A gaudy accessory loses its interest in a short time.

. If it is decorated, is the decoration simple and suitable? If an accessory, such as a flower vase, serves its purpose well, it acts as a background to complement the flowers in it.

. Is it well made? Is it a good example of its kind? Construction is important even in the smallest accessory.

START NOW TO TEACH DAUGHTER HOME DECORATING

Many young homemakers lack confidence in their ability to plan and furnish their homes. And they often lack confidence because their training includes very little preparation for their important future job.

You can begin teaching your daughter the "household arts" at an early age, according to Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota.

A mother-daughter study course in interior decorating would not only be fun for both of you, but it would also produce a more relaxed and confident bride some day.

The best teaching tool is her own room, so why not begin your course there? When she becomes a teenager, let her "do" her room. Together, figure out the amount of money that can be spent and remind her that it must cover

curtains, rugs and accessories and other items. Give her a free hand in making inexpensive purchases. Even if she makes some poor choices, she'll learn from them.

The next phase of your study course might expand to include the whole house. When she is ready, let her help you with decisions about decorating and purchasing for the rest of your home. By shopping with you, she'll learn how to look for value, how to compare and which brand names to depend on.

If you can instill in your daughter the feeling of creativity in decorating, she will find satisfactions in self expression and in production of a beautiful environment which will bring increased happiness for her own family.

BRING SUMMER INTO HOME WITH A FEW CHANGES

A few changes in accessories and arrangement can bring the freshness of summer into rooms in your home.

A good way to start is to change the point of interest in a room, suggests Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota. For example, rearrange furniture groupings with the view toward windows, doors or terraces to direct attention to the outdoors. Keep a large vase of ferns, other greenery or flowers in front of the fireplace.

A profusion of greenery and new accent pillows are two ways to change the appearance of a living room. You may want to change the accent colors, bringing in cool, light colors.

Light, airy material at the windows will lighten the room, as will a change of slip-covers -- if you want to make some changes on a larger scale.

Putting away bric a brac and many of the small accessories will give rooms a cooler, uncluttered appearance and will make the dusting chore easier.

"TLC" IS IMPORTANT IN FURNITURE CARE

TLC (tender, loving care) goes a long way with furniture as well as your personal beauty care.

Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, gives some "TLC" tips to help keep your furniture in good condition.

Wood: Store extension leaves for the table in a cool, dry place to avoid warping. Never place fine woods where they'll be subjected to excessive heat, direct sunlight or open windows.

Scratches: Touch-up sticks and putty sticks are available in a variety of colors to blend with finishes. Occasional thorough cleaning and waxing works wonders toward restoring original good looks. Scratches and mars may be

touched up or covered with matching colored varnish applied with a fine water color brush.

White or foggy spots: Use any liquid oil such as salad oil to remove white spots on furniture. Rub into the spot with your finger. Your warm finger and the resulting friction drives the oil into the damaged area. Continue until the spot is no longer noticeable.

Upholstered fabrics: Remove as much dirt and dust as possible by vacuuming before cleaning upholstered pieces. Remove grease stains from hair oil with a grease solvent such as a dry-cleaning solution in an inconspicuous place first if you are uncertain of color fastness.

Leather and plastic upholstery: Use a mild soap and a damp cloth to clean leather or plastic upholstery. Rinse with a second damp cloth and rub with a dry clean cloth. Don't use furniture polish.

As a final tip Mrs. Zabel suggests reading the manufacturer's tags. They often provide excellent instructions for the best care of their products.

WHY NOT DECORATE WITH HOUSE PLANTS?

Why not show off your house plants to best advantage?

When you begin decorating with house plants, more than knowledge of plant care is called for. Apply some art principles, too, suggests Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota.

The colors found in walls and floor coverings are the backgrounds for your plants and will flatter or complement them, if you select the plants with care. Dark green leafy plants will be effective used against a light background. Against dark walls, use plants having lighter foliage.

Plain or solid colors make the best backgrounds for any plant materials.

The relation between size and shape of the plant and the space where it is used is important. Use a plant or group of plants similar in shape and big enough to fill the space adequately but not crowd it. Use flat, low plants on low tables. For a feeling of unity in your table service, use a low, spreading centerpiece.

The care a plant requires is a good clue to where it should be placed. Nothing detracts more from a decorating scheme than plants which have become sickly because of being placed in a dark corner, a drafty area or a hot, sunny spot.

A container for a house plant should be in keeping with the surrounding furnishings. It should stay quietly in the background, doing its job without attracting undue attention.

For more information on decorating with house plants, get a copy of Home Economics Fact Sheet No. 10, available from your county extension office or from the Bulletin Room, Institute of Agriculture, St. Paul 1, Minn.

HERE ARE WAYS TO KEEP HOUSE COOL

Making the rooms in your home look cool will go far toward keeping members of the family feel cool on hot, humid days.

Any room will appear cooler and be much easier to dust if some of the decorative accessories are put away for the summer, Mrs. Myra Zabel, extension specialist in home furnishings at the University of Minnesota, points out. Uncluttered, smooth surfaces are restful, too. Bring out a few summery accessories such as light covers for sofa pillows, and put away pillow covers that have a distinctly winter look.

If your rooms are decorated in golds and oranges, try to subdue these colors by using greens, blues and whites in accessories during summer for a cool effect.

Although your home will not be any cooler

if you put up lightweight curtains in place of heavy draperies, sheerness in curtains does give the impression of airiness.

Davenport upholstery in wool or a scratchy, warm material can be slipcovered with a light, smooth fabric. If the budget won't allow a slipcover, an attractive, inexpensive cotton throw can serve the purpose.

Don't forget one of the simplest ways of keeping heat out -- drawing shades or blinds during the warmest part of the day.

Set a pretty table and use your imagination in serving foods so they appear cool. For example, tall blue glasses of lemonade and tall amber glasses of iced tea served with a sprig of mint look appetizingly cool. Terry tablecloths that absorb moisture from glasses or place mats of straw or other easy-care materials look summery and will spare the hot ironing chore. Add a bowl or vase of fresh flowers as a centerpiece to make your table inviting.

Home Management

ATTITUDE CAN CAUSE FATIGUE

Dog-tired after doing housework? The physical energy you expend may be responsible -- or your mental attitude may be a contributing factor.

Recent studies show that homemakers who feel that housework is drudgery and a thankless job will find the work exhausting -- a case of emotionally induced fatigue. On the other hand, women who view homemaking as a labor of love for the family gain satisfaction and a feeling of creativity from providing for their needs.

"We hamper our work capacities tremendously by frustrations, irritations and impatience, all of which consume three to four times the energy that actually doing the work would take," says Mary Frances Lamison, state home economics agent at the University of Minnesota.

Inability to make decisions or to take action also consumes added time and energy that could well be spent in getting the job done with less wear and tear. Every time you replace inaction, frustration or irritation with action, you grow in ability to make decisions, in self respect and pride of accomplishment. Instead of needlessly burning energy through frustrations, find the situations that can be remedied and learn to accept what cannot be changed, Miss Lamison urges.

Worry can poison all forms of energy if it is uncontrolled. Learning to control this enemy is a step to self-mastery as well as to wise use of energy, according to Miss Lamison.

Like everyone else, you have limited energy and great demands on it. That's why it's important to have clear-cut concepts of what is most important for yourself and the family and to spend your energy to achieve those goals with as much caution as you spend the family budget.

THINK TWICE BEFORE DISCARDING ALUMINUM UTENSILS

Food superstitions die hard even when scientific research and long practical experience prove them wrong.

Among such superstitions are misleading statements still being spread in many areas of the state about the dangers of using aluminum utensils.

At intervals, worried homemakers report they have been told that their aluminum cooking utensils are bad for the health of their families -- that aluminum dissolved into the food from

cooking utensils is poisonous and can cause all sorts of ailments, including cancer. Such propaganda is frequently spread by house-to-house salesmen for competitive cooking utensils who try to make sales through the use of such rumors. Such salesmen attempt to talk homemakers into discarding perfectly good pots and pans for new, expensive sets of other materials.

Extension nutritionists at the University of Minnesota point out that the propaganda against aluminum cooking ware is without foundation. The National Better Business Bureau has investigated the allegations and is satisfied that they are completely unfounded.

The American Medical Association, the U. S. Public Health Service, the American Cancer Society, Inc., the U. S. Department of Agriculture, the Mayo Clinic and the Federal Trade Commission have agreed and have stated that aluminumware is safe for cooking.

We take aluminum into our bodies daily from food and water, regardless of the type of utensil in which the cooking is done, the University nutritionists say.

Aluminum is found in many baking powders and in some vanishing creams and deodorants which are applied to the skin and thus readily absorbed by the body. Many homemakers who make their own pickles use alum to keep them crisp. Aluminum foil is a popular wrap to protect food and preserve its freshness. None of these uses are harmful.

Aluminumware has many advantages in cooking, according to household equipment specialists. Homemakers can be assured that aluminum is also completely safe to use for cooking.

FASTER COIN DRY CLEANING IN OFFING

Combination washer-dryer-drycleaner machines may be available for home installation within the next five years.

But in the meantime faster coin-operated dry cleaning is definitely in the offing, according to Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota. New machines are appearing using a system of dry cleaning which makes a shorter cycle possible.

This system, until recently in the experimental stage, uses a fluorocarbon cleaning solvent. This solvent can reduce the dry cleaning cycle to little more than the time required for cleaning -- 15 to 20 minutes -- because it evaporates very rapidly at room temperature. The cleaning solvent -- perc -- now in wide use in coin-operated dry cleaning machines has a

low evaporation rate. Hence, the cycle time for most machines using this solvent ranges from 45 minutes to more than an hour -- 15 minutes for cleaning and the remainder for drying.

A dry cleaning fluid based on this cleaning solvent, sold under the name of Valclene, contains a detergent, a fabric conditioner, an anti-static agent, and is said to minimize soil depositing and fabric shrinkage. It has been used successfully in experiments on plastic materials, adhesives and rubber compounds used in the make-up of many garments -- in buttons and buckles, for example.

Since the new solvent is higher in cost than the standard one now in use and the machines to use it are more expensive to make, the cost of cleaning to the consumer may be higher. One large manufacturer of dry cleaning equipment believes that this cleaning fluid will not replace perc now in use but that it will find usage when the consumer wants faster service or wants to clean certain types of clothing which contain rubber, plastic or adhesive materials.

CHECK LABEL CAREFULLY WHEN BUYING SHEETS

The label can be a helpful guide when you buy sheets at January white sales.

But be sure to read the label carefully and interpret it correctly, cautions Mrs. Edna Jordahl, extension home management specialist at the University of Minnesota.

A good label should at least tell you the sheet's torn size, thread count and shrinkage. But to buy wisely, you need to know what these terms mean, Mrs. Jordahl points out.

Torn size is size of the sheet before hemming. But it also means the sheeting was torn from the bolt on the straight grain of the yarn. Sheets that are torn have straight seams and keep their shape better than those that are cut. If the label does not specify torn size, the sheet was probably cut from the bolt and may be off-grain.

A sheet labeled 108 inches torn length -- the usual recommended length for sheets -- is actually about 98 inches after laundering, since 5 inches must be allowed for hems and about 5 inches for shrinkage. A sheet marked 99 inches before hemming is actually only about 90 inches after laundering -- too short to tuck in properly, Mrs. Jordahl says. Other torn lengths available are 113 inches and 117 inches.

Thread count means the number of yarns per square inch and has been adopted as a designation of various types of sheets. A higher thread count muslin or percale sheet is generally stronger than one with fewer threads.

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 heavy, sturdy and the longest wearing of the muslin sheets but may be bulky to handle in the laundry. The lower priced type 128 is a medium-weight muslin that gives satisfactory wear for household use. Sheets with thread counts lower than

128 may be too loosely woven to give satisfactory wear.

Percale sheeting has a thread count of at least 180. Finest quality percale is 200 or above. Sheets of combed percale have longer, smoother fibers than carded percale and will wear longer.

Be sure to check the label for shrinkage information. It may give maximum amount of shrinkage which will occur, say "fully preshrunk" or say "preshrunk" without telling how much further shrinkage will occur. If the sheet is not preshrunk, buy sheets large enough to allow for shrinkage. Contour sheets, however, are fully preshrunk. Buy them to fit the mattress exactly. Contour sheets with elasticized corners are now available for greater ease in fitting the sheet on the mattress.

FIND EASIER WAYS OF DOING WORK

MADISON -- Work simplification is one of the answers to physical fatigue and the homemakers' problem of finding no time for anything but work.

According to Dorothy Simmons, state leader of the extension home economics program at the University of Minnesota, work simplification is an approach that avoids hurry but finds an easier way of doing things.

Women with two jobs -- the home and one outside the home -- homemakers with young children, the physically handicapped and the aged, young people establishing work habits and those about to build or remodel are especially in need of work simplification helps.

Any homemaker can improve efficiency and save time by analyzing her own work methods and applying work simplification principles to her particular way of doing things. As one method of analysis, Miss Simmons recommends selecting an often repeated task, observing yourself as you do it and recording your motions. Then ask yourself if you can eliminate steps by changing the routing or changing location of equipment; if you can combine operations; if there is a change in work area that will simplify the process.

Adopting or adapting time-saving methods that have been scientifically researched is another way the homemaker can simplify her work. These methods include streamlining such jobs as bedmaking and dishwashing and storing articles where they are used most often.

Here are a few work simplification methods any homemaker can apply:

- . Make one trip take the place of several, for example by using a tray to set or clear the table.
- . Arrange supplies and tools within easy reach.
- . Store equipment at the place of first and most frequent use.
- . Use both hands in working.
- . Develop rhythmic, continuous motions for repetitive jobs.

GOOD MANAGER STRIVES FOR IMPROVEMENT IN METHODS

MADISON -- A good manager strives for continuing improvement in methods and results, according to Dorothy Simmons, state leader of the extension home program at the University of Minnesota.

Miss Simmons said a good manager also: REASONS out his own answers, applying his intelligence to questions at hand rather than relying on ready-made answers or conforming unquestionably, especially in important matters.

TAKES A FRESH LOOK at things frequently, recognizing that both resources and goals may have changed.

FOCUSSES on the main idea.

IS NOT LIKELY TO TAKE IMPULSIVE action.

RECOGNIZES THERE MAY BE MORE THAN ONE RIGHT answer.

CAN ADJUST TO CHANGE and brings about change.

RECOGNIZES MANAGEMENT AS A MEANS, not the end, and does not make fetish of management.

Miss Simmons listed as personal qualities of a good manager: intelligence to understand facts related to goals. resources and alternative courses of action; imagination in anticipating situations; judgment in choosing a course of action and setting realistic goals; perserverance; adaptability; understanding of human nature; and self-management.

WHAT DO YOU PAY FOR APPLIANCES?

How much do you pay for your appliance? And how much money do you have tied up in equipment -- some of which you never use?

Perhaps you pride yourself on being a good family purchasing agent, you do comparison shopping and buy only after you're sure you're getting the best value for the money you spend.

But Mary Frances Lamison, state home economics agent at the University of Minnesota, points out that regardless of the amount of money you thought you saved on a piece of equipment, it wasn't really a good buy at all if you don't make use of it. She suggests that families take inventory of all equipment they have in the home to see how much they use various appliances and how much money is tied up in these pieces.

After making such an evaluation, one woman discovered \$50 worth of equipment her family used never or seldom; another woman, however, found the family had \$2,856 worth of needless equipment.

In taking your inventory, list equipment and supplies on the lefthand side of the sheet. Then make three columns to the right for checking: seldom used, never used and cost of features seldom or never used.

Here are some suggested items for your check list of equipment or supplies: washing

machine suds saver, rotisserie, timed cooking on range, pull-out oven on range, floor polisher and scrubber, lawn mover and snow plow attachment, electric roaster, pressure saucepan, electric mixer with grinder or juicer attachment, electric mangle, kitchen gadgets, vacuum cleaner attachments, record player, F. M. radio, company dishes, company tablecloths.

How many of these extras in equipment do you keep without getting your money's worth in use?

MAKE THE MOST OF INDIVIDUAL WORK CAPACITY

Don't blame yourself if you can't get as much work done as your neighbor.

Since people vary greatly in the amount of physical, mental and nervous energy they have, it is important to understand your own work capacity, points out Mary Frances Lamison, state home economics agent at the University of Minnesota. Plan to take advantage of the time of high energy to get the bulk of your housework done, she suggests. For example, whether you work most efficiently in the early morning or in the evening, make the best possible use of that time without feeling guilty because you don't conform to the work pattern of your neighbors.

Once you recognize your energy capacity, accept the challenge of finding more efficient ways of working and of making every piece of work a satisfying experience. Here are some suggestions from Miss Lamison for more efficient use of energy:

. Have a common understanding of what the family wants out of life; then eliminate whatever does not lead to those goals.

. Organize work to be done in daily, weekly, monthly and occasional schedules, and integrate some jobs from each schedule into each day's tasks so that no one day is heavily loaded with housekeeping.

. When you buy furnishings and equipment for the home, choose only those things you will really want to keep clean and care for as the manufacturer has recommended. This rule will save time, money and energy.

. Work at a speed best suited to your individual capacity and let other family members do the same.

. Do disliked jobs early in the work period, leaving the more enjoyable ones for times when you have less energy.

. Develop skill in tasks to be done. Learn how others proceed with their housework; they may have some good management techniques.

. Use thigh and leg muscles rather than back muscles when lifting.

. Learn to dovetail as many jobs as possible. For example, cook breakfast cereal in top of the double boiler and hard-cook eggs in the bottom for lunches.

. Take frequent rest periods -- preferably 10 minutes out of each hour to relax.

Housing

FARMHOUSE PLAN INCLUDES OFFICE

A plan for a convenient framehouse with special features appealing to the farm family has been developed by the U. S. Department of Agriculture. It is plan No. 7140.

One of those features is a small office located near the front door -- a convenient place for farm business transactions and record keeping.

Room sizes and storage spaces are generous. A laundry center, located next to the sleeping area, is convenient to the source of most soiled clothing and linen.

The storage room off the carport may be used to store lawn furniture and garden tools. You may screen the paved porch if you wish.

The house is arranged so that the homemaker can easily supervise activities in the dining and family areas while she works in the kitchen.

A plan similar to No. 7140 except that it features masonry, slab on grade construction, is house plan 7141.

The building drawing for both houses may be ordered from:

Blue Print Room
Department of Agricultural Engineering
University of Minnesota
St. Paul, Minnesota 55101

A charge of 25 cents per sheet is made for the building drawings of any plan. Both plans 7140 and 7141 include three sheets. Checks or money orders may be made payable to the University of Minnesota.

Descriptive leaflets are available at county extension offices.

PLANS OF MASONRY HOUSES AVAILABLE

Planning to build a home?

If you're interested in a house of masonry wall construction, the U. S. Department of Agriculture has developed a number of plans you may want to consider.

Although they are designed especially for farmhouses, the plans would also suit many suburban and urban locations. The county extension office has leaflets containing sketches and floor plans and can give you information about working drawings with construction details. A small charge is made for the working drawings.

Two of the plans are for three-bedroom houses. Plan No. 7139 is a three-bedroom rectangular-shaped house with basement. Rooms and storage areas are generous in size. A coat closet opens from the living room. Another closet, this one equipped with a lavatory, is located near the rear entrance for work clothes. Laundry facilities are in the basement.

The other three-bedroom house, Plan No. 7141, is slab-on-grade construction. Special features of this house include a family room, a small office near the front entrance and a laundry center next to the sleeping area. The rear entry with bath and storage units will help to simplify care of the house.

Plan No. 7155 is a two-bedroom farmhouse with L-shaped kitchen and dining area combined into one pleasant room. Additional dining space is available in the living room. Double windows in the dining area and one over the sink provide natural lighting. A closet for outdoor wraps is located near the front entrance; storage for chore clothes is near the rear door. Storage units for cleaning supplies, canned foods and linen are in the hallway leading from kitchen to bedrooms.

Although all three plans provide for masonry wall construction, the same plans are available with frame construction. The county extension office can give you information about them.

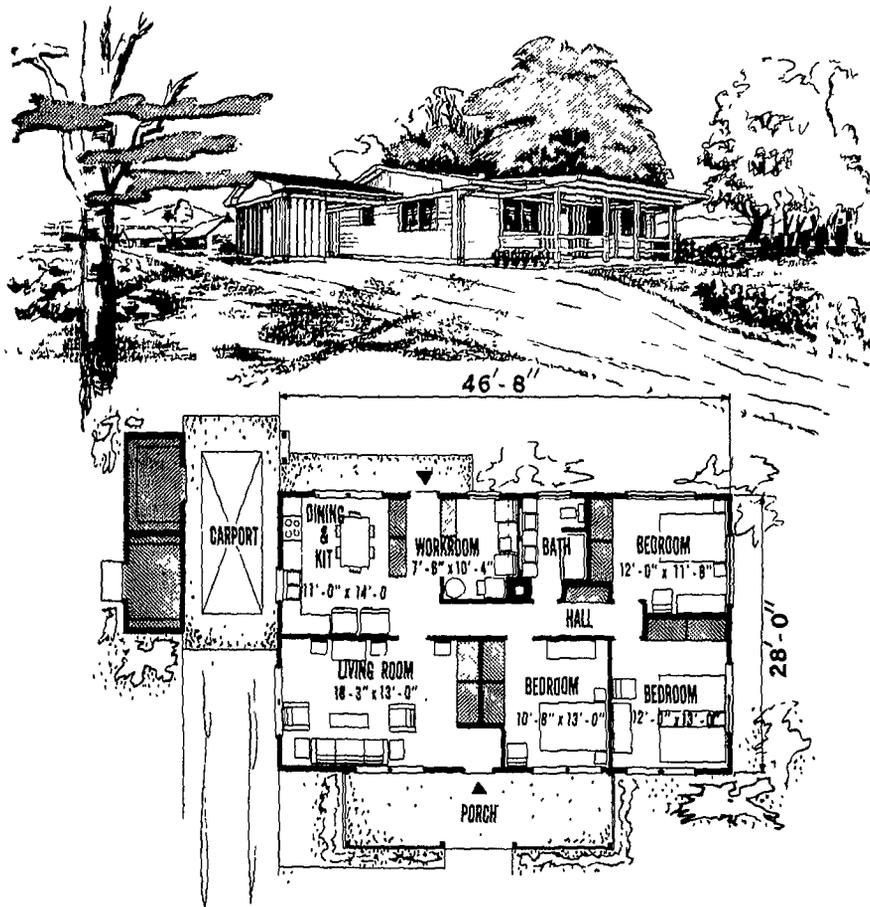
HOUSE PLAN HAS THREE BEDROOMS

Generous storage space and a front porch are featured in a new three-bedroom house plan (Plan No. 7150) developed by architects and housing specialists of the U. S. Department of Agriculture's Agricultural Research Service.

The house provides privacy in the living and sleeping areas, and each bedroom has plenty of closet space. The master bedroom is large enough for twin beds and the other bedrooms will each accommodate a double bed.

An L-shaped kitchen features liberal storage space that is conveniently located near work surfaces, and has dining space for six people. A large picture window in the kitchen gives an unobstructed view of the backyard play area.

Storage walls serve as partitions for the rear-entry hallway. The wall facing the kitchen is designed for storage of canned foods, cleaning equipment and an ironing board. The other storage wall, which opens into the workroom, provides space for work clothes.



The house is designed with a carport which, if desired, could be made into a garage.

The house has more than 1,300 square feet of living space. The front porch and carport, with storage for lawn furniture and lawn care equipment, add another 546 square feet.

Stop at your county extension office to see leaflets showing drawings and floor plans of this and other houses, and to get information about working drawings with construction details. There is a small charge for the working drawings.

COMPACT HOUSE PLAN FOR YOUNG OR OLD COUPLES

Compactness and convenience are characteristics of two house plans developed recently by the U. S. Department of Agriculture.

Although they were designed for farmhouses for a young family or an elderly couple, the plans would suit many suburban and urban locations. Both are two-bedroom houses.

In addition to two bedrooms, Plan No. 7159 has a sizable living room, a well arranged kitchen-dining area and a full basement for future expansion. The front door opens into a small entry-alcove in one corner of the living room.

Ample storage space includes a coat closet in the living room near the front door and two closets at one end of the kitchen-dining area for cleaning equipment and for food. The living room closet can also be used for storing card tables. The workroom has a closet for work clothes. A large linen closet is located in the bedroom hallway. Each bedroom has two large clothes closets.

The basement has space for general storage. One or more bedrooms could be built in the basement.

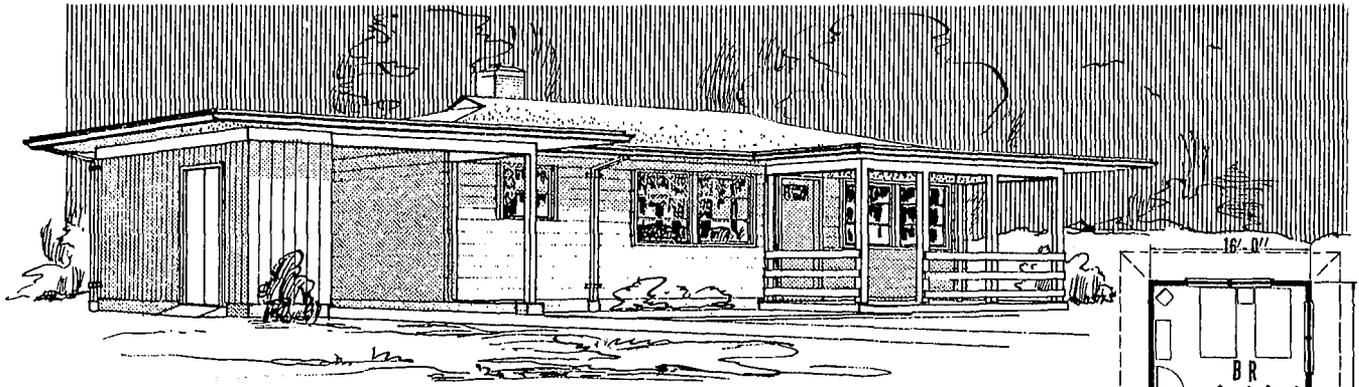
Plan No. 7160 is similar except that it is slab-on-grade construction. The front entrance is protected by the roofed portion of the brick terrace.

The kitchen-dining area is generous in size and well lighted and ventilated. The U-shaped kitchen, together with the various closet and storage spaces throughout the house, is based on results of research by state experiment stations and the Institute of Home Economics of the U. S. Department of Agriculture. The dining part of the area contains space for a desk where farm and home records may be kept.

The workroom has room for the washer, dryer, freezer and a small sink and has a closet for work clothes.

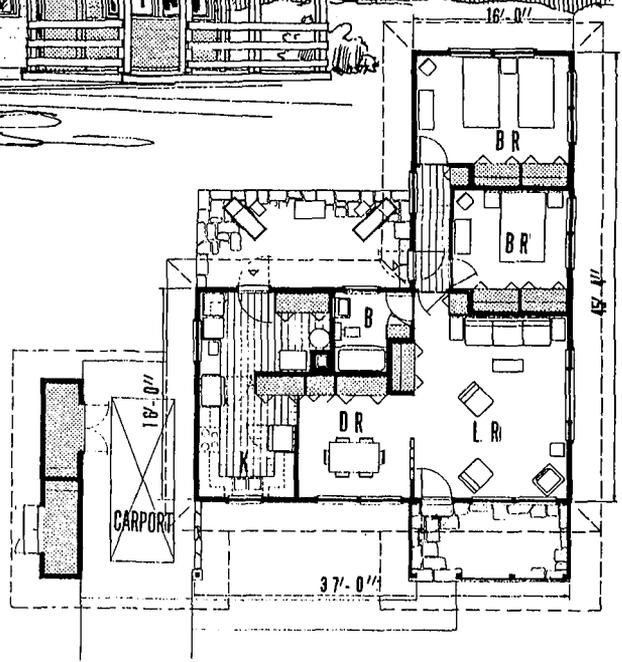
The two bedrooms are similar in size.

Stop at your county extension office to see leaflets containing drawings and floor plans, and to get information about working



PLAN NO. 7156

House areas : square feet
 Living 1180
 Porches and Carport 660



drawings with construction details. There is a small charge for the working drawings.

TENANTS SUGGEST
 CHANGES IN
 HOUSE PLAN

You have to live in a house to know what's good or bad about it.

That's what researchers in the U. S. Department of Agriculture had a farm family do -- so they could change and improve one of their experimental house designs accordingly.

The new two-bedroom farmhouse plan (No. 7156) with carport has improvements based on recommendations of the farm family and on results of a federal-state study into space requirements for work and storage areas in farm homes. The plan is suitable for both farm and suburban locations.

An increase in floor space was one of the biggest improvements based on the occupants' suggestions, according to Mary L. Muller, extension home improvement specialist at the University of Minnesota. The new house plan

provides for 1,180 square feet of floor space -- about 150 square feet more than the original house. The dining room, living room and kitchen-work rooms have been enlarged, and closet space increased.

The main part of the house can be built first and the bedrooms and carport added later. Before the bedrooms are added, the living room serves as a combination bedroom-living room. The bedroom closets are built into the living room side of the wall, with doors opening into the living room. When the bedroom wing is added, the closet doors are changed to open into the bedroom.

The bedrooms are located nearest the service areas, so the family may be alerted more quickly in case of fire or other emergency.

A flagstone terrace is built in the angle formed by the main part of the house and the bedroom wing. It provides for outdoor entertaining or other leisure activities.

Stop at your county extension office to see the leaflet containing the drawings and floor plans and to get information about working drawings with construction details. There is a small charge for working drawings.

Home Safety

HOME ACCIDENTS KILLED 378 MINNESOTANS IN '62

Home accidents took 40 fewer lives in 1962 than in 1961 -- but the home still ranks second to the highway as the scene of most fatal accidents, Glenn Prickett, extension safety specialist at the University of Minnesota, reported today.

Last year 378 Minnesotans lost their lives in home accidents. Falls were responsible for nearly half of that number -- 180 -- far outranking any other cause of the fatalities. Seventy-three Minnesota residents died as a result of fires and burns -- the second cause of most accidental deaths in the home. Poisons and firearms ranked third and fourth as causes, with poisons taking 22 lives and accidental discharge of firearms, 14.

Almost three-fourths of falls that ended in death last year were from different levels -- for example, on the stairs or from step stools.

Since spring cleaning often sets the stage for falls, Prickett cautions homemakers to:

- . Use only sturdy step stools when climbing to take down draperies or pictures, to wash walls or clean cupboards. Makeshift step stools of boxes on top of chairs lead to many a fall.

- . Avoid over-reaching and thus losing your balance when standing on a step stool or ladder.

- . When carrying loads up or down stairs, make them small enough so they do not obstruct your view of the steps.

- . Take a break when you feel tired.

- . Dress sensibly for your cleaning chores.

Prickett also urges homemakers to take advantage of housecleaning time to improve the safety of the home by:

- * Clearing all stairs of toys, cleaning equipment and other tripping hazards. Stairs are not designed for storage.

- * Mending holes in stair carpeting and seeing that other steps are in good repair.

- * Installing handrails for all stairs.

- * Installing adequate lighting in stairways and light switches at both top and bottom of the stairs.

- * Cleaning the medicine cabinet and destroying all old medications.

CONSIDER CHILD'S SAFETY WHEN BUYING TOYS

If you're doing some eleventh-hour toy shopping, take enough time to select a toy that will be appropriate to the age of the child and also one that will be safe for the child.

To be sure the toys you select are safe, Glenn Prickett, extension safety specialist at the University of Minnesota, suggests some questions to ask yourself before you buy:

- . Does the electrical toy carry the Underwriters' label insuring its safety? Are definite instructions included for operation?

- . Has a non-poisonous paint been used on the toy?

- . Do dolls and stuffed animals have button eyes that may be bitten off and swallowed by young children?

- . Do metal cars and trucks have sharp corners that can cut the child?

- . Is the child for whom you want to buy a BB gun or a .22 caliber rifle really old enough to learn how to handle a gun safely?

Giving careful consideration to the safety of toys before buying them may prevent many an accident, the University safety specialist says.

FALLS TOP ALL HOME ACCIDENTS

A makeshift ladder or a throw rug on a waxed floor may set the stage for a fatal accident or for weeks or months in the hospital.

Last year falls in Minnesota homes caused 180 deaths -- nearly half of the home accidents in which Minnesotans lost their lives. In addition, falls were responsible for thousands of broken limbs, for back injuries and serious bruises that were costly in suffering and in time lost from work.

Although home accidents took 40 fewer lives last year than in 1961, the home still ranks second to the highway as the scene of most fatal accidents. And falls far outrank other causes of home accidents, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

About a fourth of the fatal falls last year occurred on the same level; the rest were falls to different levels -- for example, on stairs or from ladders. The older age groups are in greatest danger of falling. Last year 109 men and women 75 years and older died as a result of falls. Three-fourths of these falls were from different levels. Thirty-seven of the fatal falls occurred in the 65-74-year group.

Every home can be made safer from the danger of falls, Prickett says, if the family analyzes the hazards and dangerous practices and then makes every effort to remove them. Here are some safeguards he suggests:

- Have adequate lighting at the head and foot of stairs.

. Install handrails if you don't have them on the stairs.

. Never use throw rugs unless they are anchored in some way, for example by a skid-retardant pad.

. Avoid carrying high loads that obscure your vision.

. Use a sturdy step stool to reach into a high cupboard.

The amount you pay for such a stool is a safety investment that will repay you many times over.

FARM MISHAPS KILLED 132 LAST YEAR

Farm accidents killed 132 Minnesotans last year and injured hundreds more, according to Glenn Prickett, extension safety specialist at the University of Minnesota.

He points out that farm machinery, falls, fires and explosions, drowning and suffocation were big killers.

A total of 37 persons died as a result of machinery accidents and not all of these were in the conduct of farming operations. Seven of the killings by machinery were around the house and farmstead.

Thirty-two persons were killed in farm falls last year.

"These accidents happen when people use makeshift platforms to stand on when painting or from not taking proper safety precautions when working on roofs, in hay mows and similar off-the-ground spots."

Fires and explosions killed 18 farm residents last year. Prickett noted that most of these accidents occurred around the home and farmstead.

Drowning killed 10 people on farms while nine suffocated from one reason or another. Firearms, blows from falling objects and bites of animals each accounted for five farm deaths.

Prickett points out that the variety of work the farm family does make it particularly vulnerable to accident. It also makes the farm accident rate higher than that for any other industry.

He says this means that farm folks have to be particularly careful to take safety precautions and should "think safety all the time."

FARM FIRES CAUSE \$2.8 MILLION LOSS IN MINNESOTA DURING 1962

About \$2.8 million worth of farm property and products went up in smoke in Minnesota during 1962, according to a recent report from the State Fire Marshal's office.

The loss figure shows little change from recent years, says Glenn Prickett, extension safety specialist at the University of Minnesota, in citing the report.

Some 580 different farm fires were reported during the year. In addition to the financial loss, these fires accounted for 18 deaths.

Fires in barns continued to be the most common single type of fire on farms, accounting for 232 of the total. Other types of fires, in order of occurrence, were dwellings, 134; tractors, 46; hay and straw (other than in barns) 32; poultry houses, 22; sheds and shops, 21; machinery and equipment, 16.

However, 164 of the fires were classified as "miscellaneous."

The most frequently reported causes of 1962 farm fires included inadequate, defective or misused electrical equipment; heating units; rubbish and grass fires; defective chimneys, lighting; careless smoking; sparks or burning rubbish from tractors; careless handling of petroleum products and spontaneous combustion.

Prickett says the causes of fires suggest the areas of concern in fire prevention. Electrical systems need periodic checking by qualified electricians. Regular checking is also important for heating equipment, including chimneys.

Tractors should be stored where they are clear of trash and won't endanger buildings and other equipment should fire occur. Liquid fuels should be stored 40 to 75 feet from buildings. And approved fire extinguishers are a useful precaution around any home or farm.

UNIVERSITY OF MINNESOTA



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