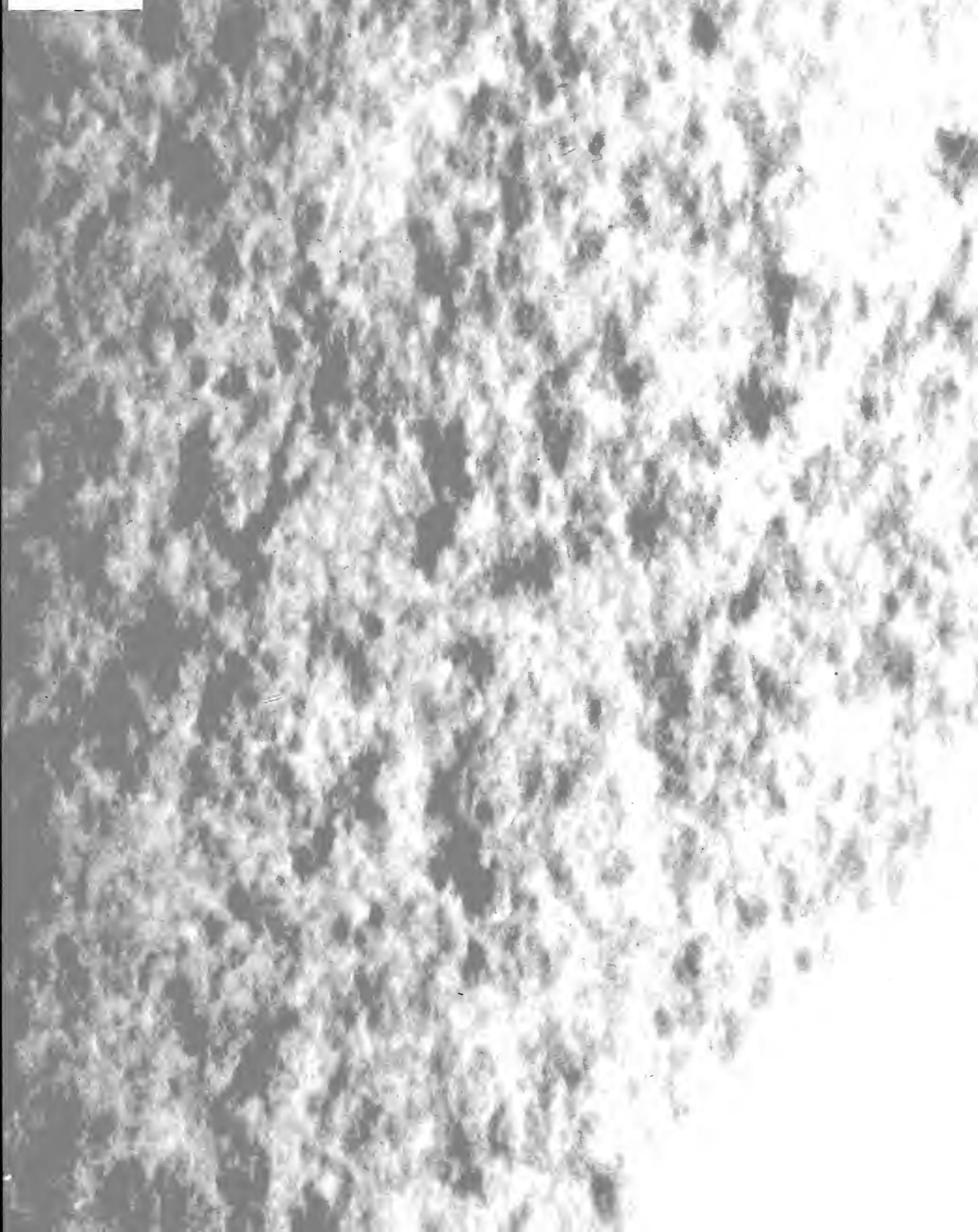
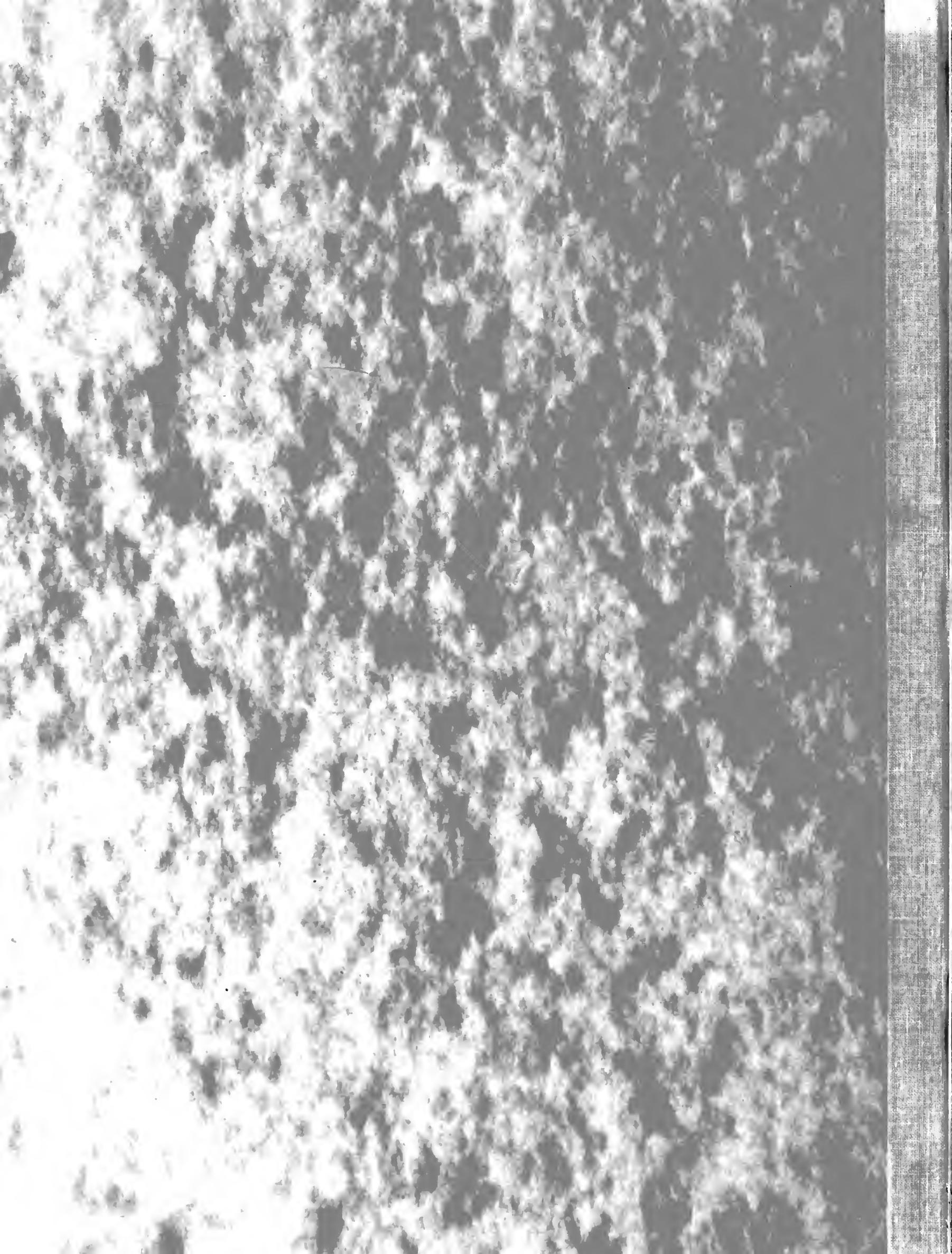
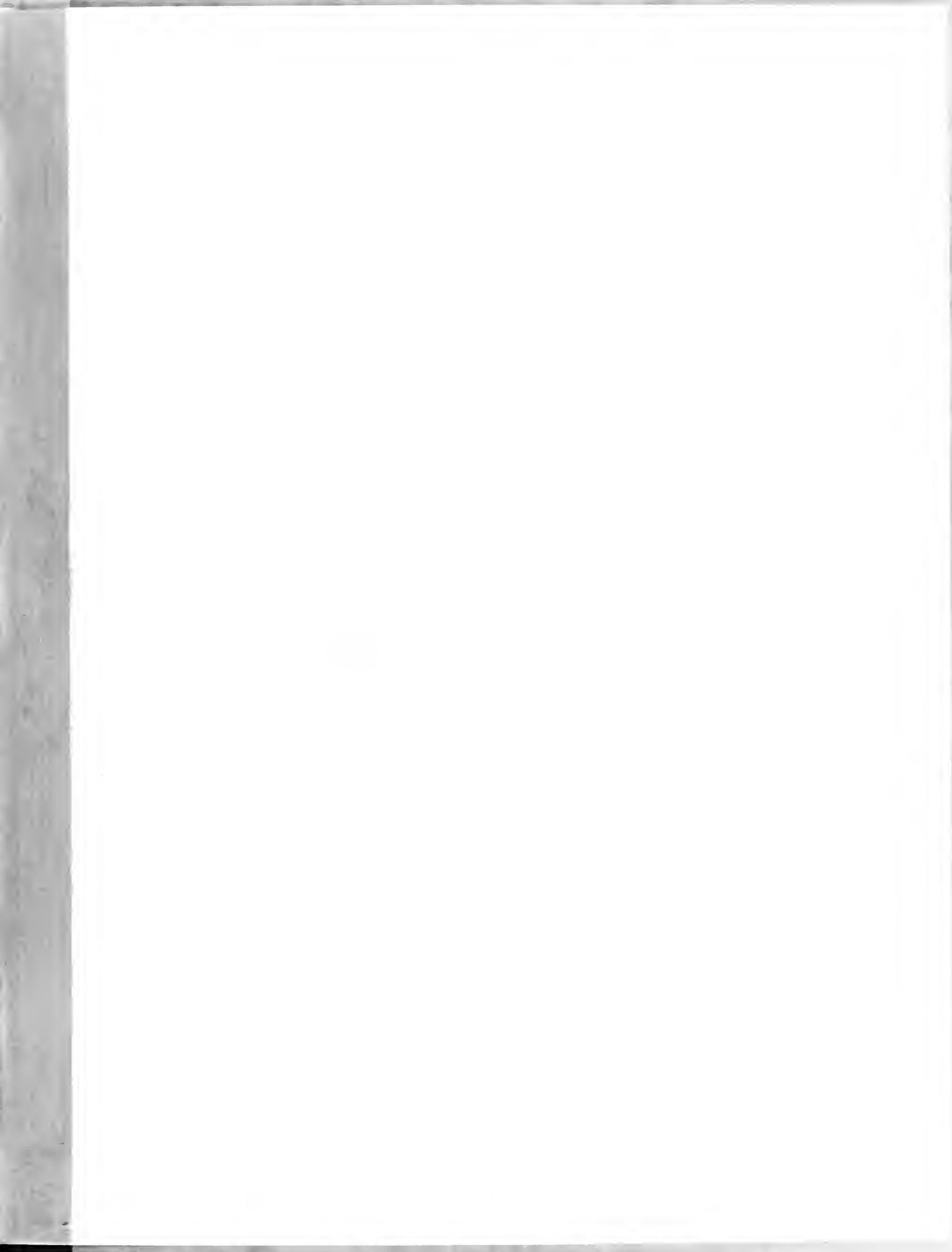


Q.630.7  
186c  
no.1128  
cop.5







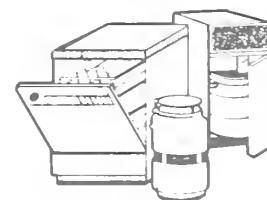




RE-USE COPY  
LIBRARY

# SELECTING AND USING FOOD WASTE DISPOSERS, TRASH COMPACTORS, AND DISHWASHERS

UNIVERSITY OF ILLINOIS  
AGRICULTURE LIBRARY



COLLEGE OF AGRICULTURE · UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN · COOPERATIVE EXTENSION SERVICE  
CIRCULAR 1128

This circular includes information on the various features available on current models of food waste disposers, trash compactors, and dishwashers and gives hints on the use and care of the appliances. It is one in a series on buying home appliances.

## Food Waste Disposers

Food waste disposers are designed to grind and dispose of food waste. Good disposers grind food fine enough that it doesn't cause problems in a home's plumbing system.

### STYLES

Two types of food waste disposers are available—batch feed and continuous feed. In the batch-feed model, the sink stopper serves as the cover of the disposer and activates the motor switch. The stopper is locked and turned to start the disposer and reversed to turn it off. In the continuous-feed model, the switch is located either on the wall (out of children's reach) or under the sink. In this model, food can be added during the grinding process.

The initial cost of a batch-feed model is more than a continuous-feed one because the switch is included in the disposer. However, if a switch for a continuous-feed disposer must be installed, the cost of the disposer and the electrician's fee may be more than the initial cost of a batch-feed model.

### CONSTRUCTION

The relatively inexpensive disposers installed in many apartments and new construction projects tend to last only three to five years. Because their interiors are made

of materials that do not resist corrosion, detergent, food acid, chlorine cleansers, and chemicals in the water soon corrode the inside. Once the water seal is broken and water leaks on the motor, the disposer is ruined.

Better disposers last from eight to ten years. Their interiors are made of stainless steel, which resists corrosion, and their shredding elements are larger, allowing them to grind more efficiently and dispose of such large items as whole grapefruit rinds.

Food waste disposers have either  $\frac{1}{3}$ - or  $\frac{1}{2}$ -horsepower motors. The extra power of a  $\frac{1}{2}$ -horsepower motor helps prevent jamming, especially when grinding bones.

All disposers have impellers that either hammer the food or throw it against the inside of the appliance. The impellers are fixed in some disposers and pivot in others. Pivoting impellers help prevent jamming because they tend to swivel away from the objects that are likely to cause jams.

### SPECIAL CARE

A jam can overload the motor. If a jam occurs, let the motor cool for three to five minutes, push the reset button, and turn the switch on again. If this does not unclog the disposer, turn the motor off and use another means to dislodge the food causing the jam.

Some manufacturers provide a lever that can be turned to dislodge food waste that has caused a jam. Others suggest that a broom or hammer handle be used to force the rotor slightly and dislodge the food. Some disposers reverse to prevent the appliance from jamming.

Grinding bones occasionally in the disposer keeps the shredding elements sharp and the grinding chamber clean. Ice, lemon peels, or enzyme drain cleaners may be used to deodorize the disposer if odor becomes a problem.

## OPERATING COSTS

Electricity costs less than 15 cents a month when a disposer is used for five minutes after each meal.

## USE WITH SEPTIC TANKS

A food waste disposer can be installed in a home that has a septic tank; however, the disposer selected should grind food as finely as possible because the smaller it is ground, the more quickly it will be broken down in the septic tank. If you are installing a disposer and a septic tank at the same time, such as in a new home, make sure that the tank is large enough to allow extra surface area for fermentation and for taking care of more sludge.

Septic tanks that handle disposer wastes probably need to be cleaned more often than those without the extra waste.

## Trash Compactors

Trash compactors reduce trash to about one-quarter of its original volume under pressures of from 2,000 to 3,000 pounds. Trash includes such materials as paper, plastic, cans, cartons, glass bottles, and bones. Although some manufacturers claim that wet garbage can be compacted, it is better to put it into a food waste disposer.

Trash compactors are especially useful in communities that do not have garbage pick-up, in rural areas, and in apartment complexes.

Compactors are available in free-standing and under-the-counter models.

## OPERATION

Trash is loaded into a compactor in one of three ways, depending on the model—into a drawer, through a door, or into a bin that tilts out on the front of the appliance. The drawer is often harder to open than the bin or door.

A disposable bag must be placed inside the compactor before the appliance is used. Polyethylene bags sold in grocery stores must be used in some models, while special bags of paper laminated to polypropylene, available from a manufacturer or dealer, are needed for other compactors. The manufacturer's instruction manual should include recommendations on the type of bag to use. The bags cost from 3 cents to 33 cents each.

## ODOR

Some manufacturers suggest that no material with an odor be put into the trash compactor; however, most manufacturers provide a way for handling the problem of food odor. Some models are designed to automatically release a deodorizer each time the door is opened,

while others are equipped with a charcoal and fan combination to handle food odors. Some manufacturers recommend that the user spray a deodorizer into the compactor.

## SAFETY FEATURE

In order for the compactor to operate, the door must be closed and a key and operating switch must be turned.

## COST AND ENVIRONMENTAL CONSIDERATIONS

Compactors do not use much energy--electricity to operate the appliance costs only about 60 cents a year.

Using a compactor is sometimes said to be ecologically desirable because it saves space on landfill; however, if the compacted mass is dumped into a landfill, the contents may degrade slowly because of the plastic covering. Burning the compacted trash in a modern, high-temperature incinerator is ideal.

## Dishwashers

Dishwashers shorten the time spent on cleaning up after a meal, remove bacteria from dishes, and help reduce the number of broken or chipped dishes.

## STYLES

Dishwashers come in portable, convertible, and built-in models. A portable dishwasher can be easily rolled to the sink and then moved out of the way again when the cycle is finished. A special adapter is permanently attached to the sink faucet so that the dishwasher hose can be hooked up to the hot-water supply. The sink drain must be clear before using the dishwasher so that the water from the dishwasher will not back up into the sink. One disadvantage of the portable model is that the faucet is tied up while the appliance is being used. Some models have a bypass that permits water to be drawn from the faucet while the dishwasher is connected.

A convertible dishwasher is a variation of the portable model. It is the most expensive type of dishwasher, but can be used as a portable or easily converted to a built-in unit with an adaption kit available from a manufacturer or dealer.

A built-in dishwasher is 24 inches wide and fits under a counter. It operates more quietly than a portable dishwasher because it has more insulation.

## SPECIAL FEATURES

Dishwashers are classified as either bottom-, middle-, or top-of-the-line models. Bottom-of-the-line models usually perform as well as top-of-the-line ones for the same brand of dishwasher but offer fewer special features.

Some models feature a sanicycle, which heats the water inside the dishwasher to 150° F. This temperature is not high enough to sterilize the dishes (180° F.) but it does allow the term "sanitize" to be used.

A choice of cycles — pots and pans, regular, crystal and glassware, and rinse and hold — are available on top-of-the-line dishwashers.

## SAFETY FEATURES

Dishwashers are equipped with various safety features, including a mini-breaker fuse that protects the motor in case of an overload or jam by breaking the electrical supply to the motor, a safety switch that stops the water action when the door is opened, and an overflow protector that stops the fill-flow of water or starts draining the water when a certain level is reached. All dishwashers should carry the Underwriters' Laboratory seal.

## CONSTRUCTION

The inside of a dishwasher is made of porcelain enamel, vinyl, polypropylene, or stainless steel. Porcelain enamel has a smooth, glossy surface that is resistant to the alkaline dishwasher detergent and food stains. Vinyl, which is a flexible, uncrackable material, is especially useful in portable dishwashers, which may be moved from room to room. Stainless steel lasts longer than the mechanical part of the dishwasher and increases the initial cost of the appliance.

All dishwashers have "arms" that wash and spray the dishes with water and detergent and provide scrubbing action. Small holes in the "arms" spray water on the soiled dishes with great force. When buying a dishwasher, remember that models with several "arms" do not necessarily wash better than those with only one "arm."

## WATER SUPPLY

When shopping for a dishwasher, be sure you know what water supply the dishwasher will use. The temperature of the water should be from 140° to 150° F. Nine to 16 gallons of water is needed to operate a dishwasher, depending on the washing cycle selected and the type of dishwasher. Water pressure should be 15 to 125 pounds per square inch. Water hardness should be four to eight grains, a figure you can check with your local utility company. Water that is above eight grains per gallon should be softened with a mechanical water softener. There should be a minimum of solids in the water. In some areas, water conditions are so bad that it is almost impossible to eliminate spots and film on dishes.

## ELECTRICITY USE

A dishwasher used once or twice a day consumes about 39.68 kilowatt hours of electricity, which costs about \$1.60 a month.

Electricity can be saved by turning the dishwasher off at the heat-drying part of the cycle, opening the door of the dishwasher, and letting the dishes dry by natural evaporation. The additional moisture in the room probably won't create a problem, especially in the winter when there is low humidity in most homes.

## LOCATION

The most convenient place for a dishwasher is on the left side of the sink. If you must put it around the corner from the sink, allow 2 feet of space between the sink and the dishwasher to give you room to work.

## DETERGENT

Be sure to use detergents made especially for dishwashers. They contain a suds depressant, which prevents suds build-up. Detergents that contain little or no chlorine work well in water that has normal hardness, while chlorinated detergents work better in areas with hard water. Too little or too much detergent can cause problems. Experiment with different detergents to determine the brand and the amount best suited to your appliance and water.

## SPECIAL PRECAUTIONS

Some items should not be washed in a dishwasher. Heirloom china that does not have an overglaze is likely to fade when exposed to heat and alkaline detergent. Plastic items may melt if they are not heat-resistant. The joint that holds the handle to the blade of hollow-handled silverware may melt, wood will dry out and crack, items made of anodized aluminum will lose the anodized finish, cast iron will lose its seasoning, and milk glass may turn yellow from being washed in a dishwasher.

## For More Information

For more information on buying food waste disposers, trash compactors, dishwashers, and other appliances, check your local library for the following publications:

*Consumer Reports*

*Consumers' Research Magazine*

Habed, Virginia. *MACAP's Handbook for the Informed Consumer*. Major Consumer Action Panel, Chicago, 1973.

Klankin, Charles. *How to Buy Major Appliances*. Henry Regnery Company, Chicago, 1973.

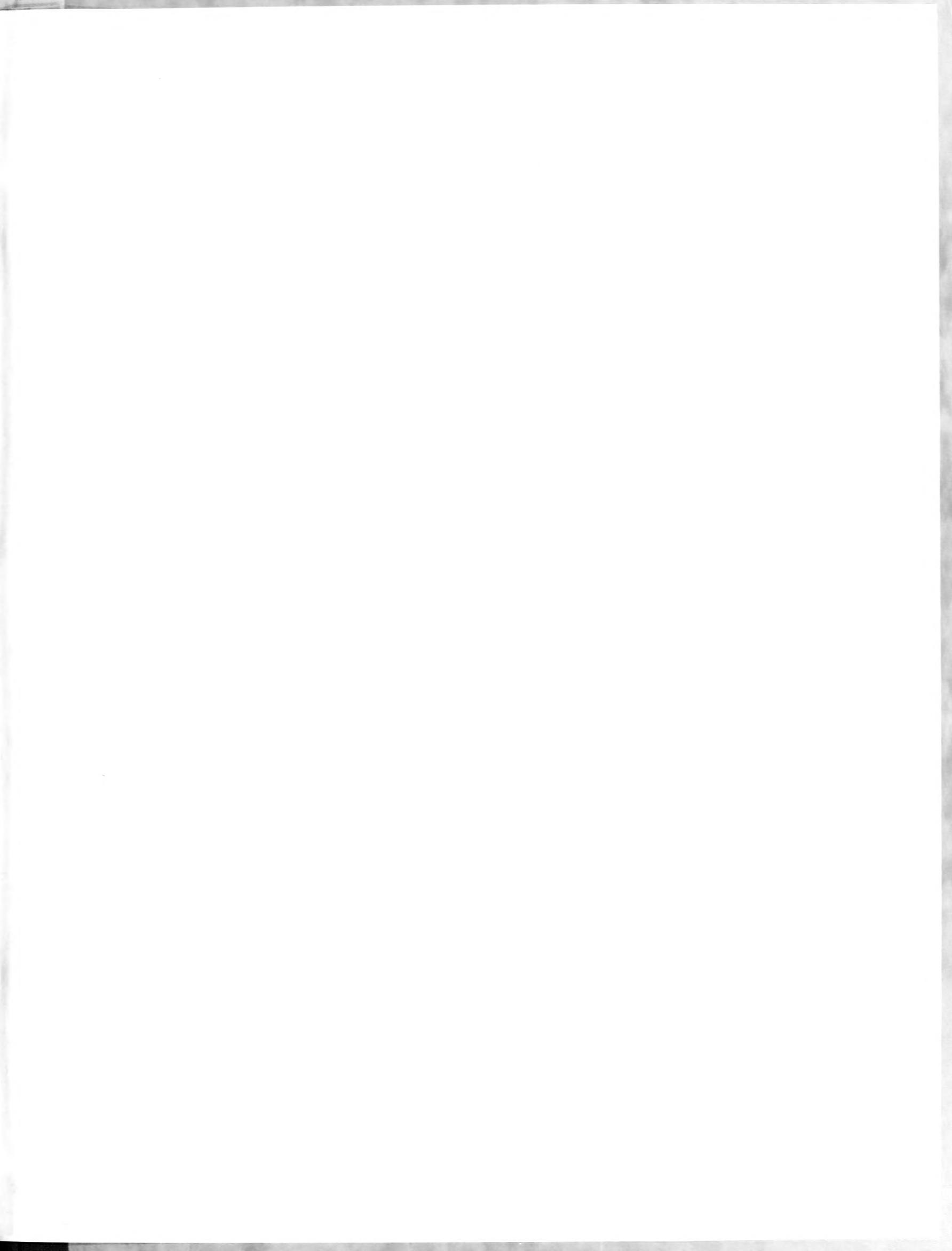
Read the manufacturer's instruction manual before using any new appliance.

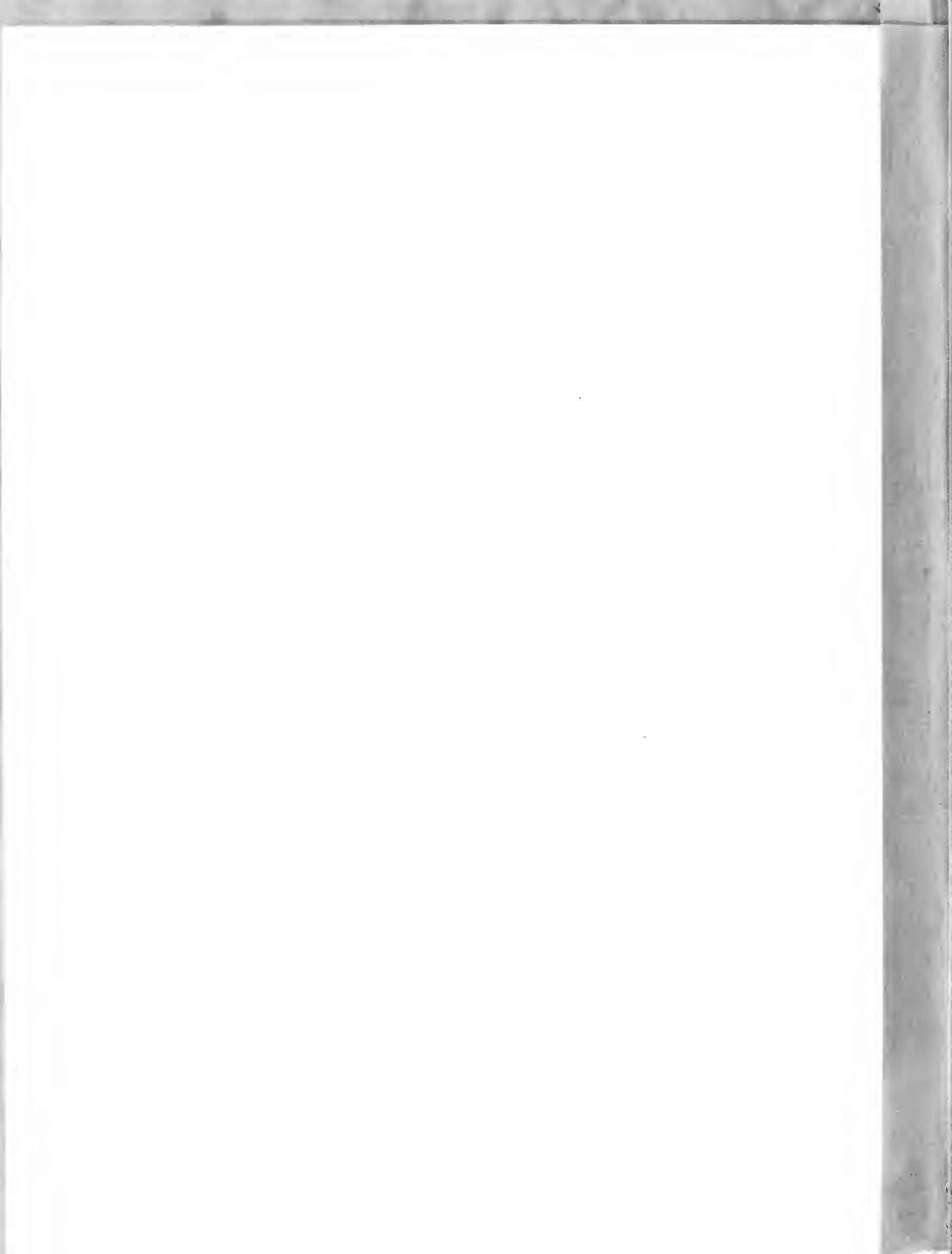
## Notes

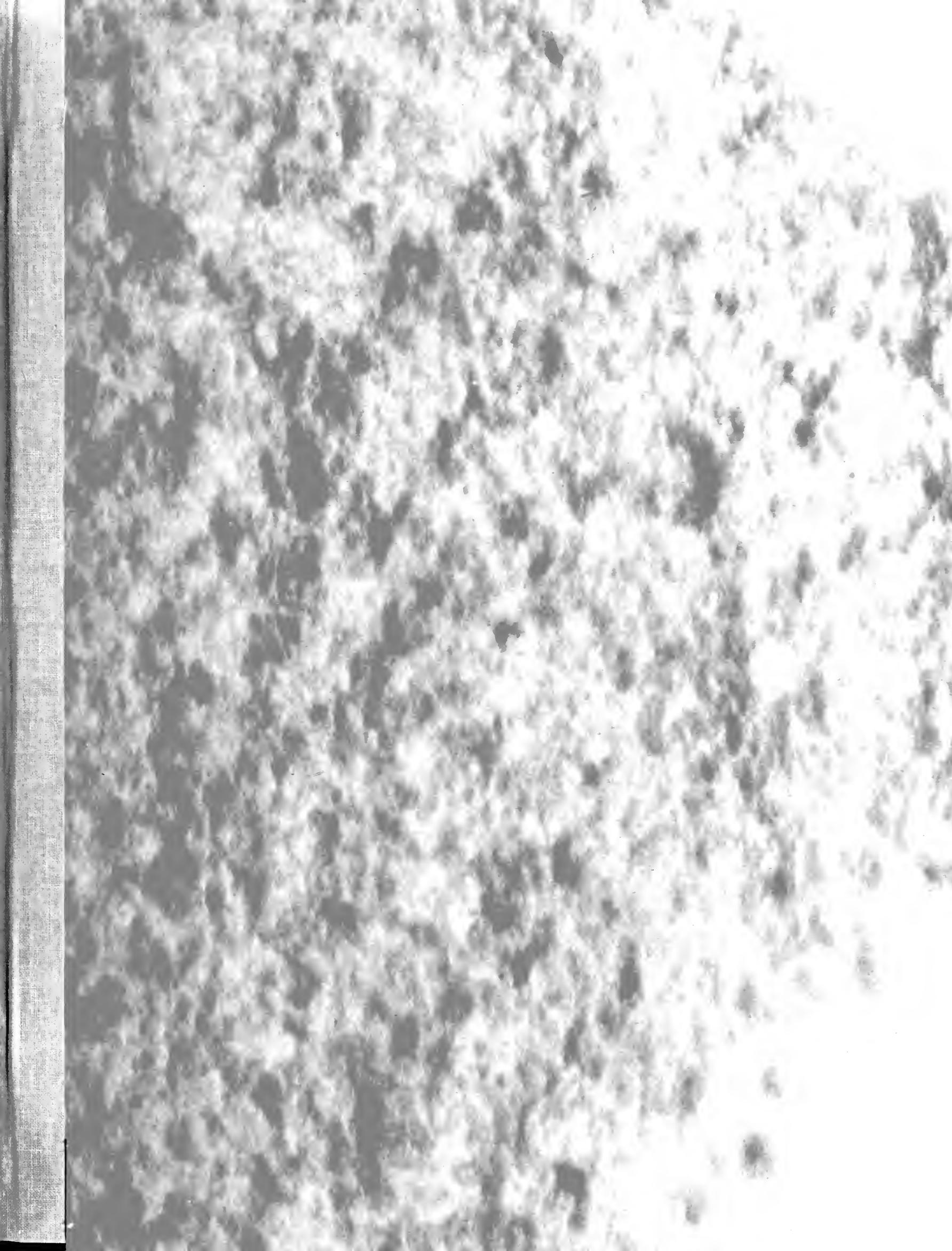
*This circular was prepared by Jacqueline Anderson, Assistant Professor, School of Human Resources and Family Studies.*

---

Lived in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. JOHN B. CLAAR, Director, Cooperative Extension Service, University of Illinois at Urbana-Champaign. The Illinois Cooperative Extension Service provides equal opportunities in programs and employment.







UNIVERSITY OF ILLINOIS-URBANA  
Q 630 7IL6C C005  
CIRCULAR URBANA, ILL.  
1128 1976



3 0112 019533519