Light Without Switches!

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Kerosene and gasoline lamps can do good job if properly chosen, placed

I F YOURS IS ONE of the 140,000 Iowa farm homes in which the fuel oil lamp still burns, don’t sit by its feeble rays and wait for the years to bring the “high line” past your place . . . you may ruin your family’s eyesight in the interim.

That’s the advice of the Household Equipment Department at Iowa State College, and it’s based on a study of kerosene and gasoline lighting made both in the laboratory and in a typical farm home.

The mere fact that you have to use fuel oil doesn’t mean that you need to give up all hope, good lighting, the study proves. There is much that can be done to more adequately light the farm home without electricity—it’s mostly a matter of having a few more lamps around, selecting the right kinds, placing them properly and using certain kinds of shades.

In the first place, one kerosene or gas lamp isn’t enough in a room. And yet a study made in Nebraska some years ago showed that 82 percent of the homes included had kitchens and living rooms lighted with one lamp. Granted that there has been some improvement since then, the illumination in most fuel-lighted homes is far below standard.

To be well lighted, the average farm living room will require, of an evening, a minimum of three shaded lamps, preferably one round wick, one mantle wick and one vapor pressure lamp. One lamp should be used for general lighting and the other two placed to light intensive activities of all family members, such as reading, sewing and studying.

Providing additional lamps adds little to the cost, once the lamps are bought, because the fuel oil used is negligible—particularly when its value to health of eyes and nerves is considered.

The general lamp is necessary to take the dusk out of the corners. A room spotted with dark and light patches is hard on the eyes—makes it necessary for the eye to adjust itself constantly back and forth between light and dark.

Every room should have one vapor pressure lamp—two are too many, not because of an excess of light but because the slight singing noise of the vapor pressure lamp may begin to be irritating when doubled by the presence of two lamps. The normal person easily adjusts himself to the slight noise of one, however, after the lamp has been in use for a short period. If it’s a choice between the slight noise and good light, endure the first to obtain the second, household equipment experts advise. Vapor pressure lamps were found to give off less heat than the other types.

Whether the vapor pressure lamp used gasoline or kerosene made practically no difference in the lighting. The kerosene lamp used more fuel than the gasoline, but gasoline costs more in the first place. The important thing about this type of lamp, however, is to keep the pressure up. Vapor pressure lamps should be pumped up once or twice an evening. The amount of light decreases as the pressure goes down, although the average person reading by the lamp is unaware of the gradual change in intensity of light. Flickering of the light indicates that the pressure is down.

For the kitchen, at least two lamps are recommended—one, probably the vapor pressure, for general illumination, and the other a mantle bracket lamp. The latter should be placed approximately two feet above the work surface, out of the range of splash from dish water or cooking steam. Brackets located over the important kitchen or living room working surfaces would be a good idea, according to household equipment specialists—the bracket cost about 60 cents each—so that the lamps could be carried from place to place as the center of activity changed. Mantle bracket lamps gave the most light when placed at table level.

A shaded gasoline, mantle or round wick lamp was found to give enough light for dining if placed in the center of the table. If there is to be other activity in the dining room, however, more lamps should be added.

General illumination from one shaded lamp was found desirable for the bedroom, too. A mantle bracket lamp placed near the
dressing table or dresser mirror provided necessary light, although such a lamp on either side of the mirror was found to be ideal, since both sides of the face were illuminated.

Hanging and floor lamps using fuel oil were found to be less satisfactory than the table and bracket combination. The shades on fuel oil floor lamps need improving. Reflectors behind lamps were found to be satisfactory only when the lamp was at eye level, and the work done very close to it. There was some glare, however.

The straight unshaded lamp is discouraged by lighting experts. If used, its purpose should be general illumination only, and it should be placed well above the eye level to avoid glare.

Shades on the lamps not only decreased glare but also increased the number of foot-candles (intensity of light scientifically measured) beneath the lamps. Shades of smaller upper diameter and larger lower diameter made more foot-candles available than shades with large holes at the top.

Shades that are white or light-colored on the inside will reflect the most light downward. Dark linings absorb light instead of reflecting it, and this is true also of decoration on light shades. For this reason, use of either dark or decorated lamp shades is discouraged. If there must be decoration, there should be only a nail band along the lower rim of the shade.

Fireproof shades would be a decided addition to the market as far as fire hazard is concerned, household equipment staff members say. The fear some homemakers have of using vapor pressure lamps is mostly unfounded, they say—the lamps are reasonably safe if directions are followed closely. Lamps should not be set on cloth table covers when there are children in the family, because of the possibility of a child's tugging the cloth off the table and the lamp with it.

Newspaper accounts of fire tragedies make it seem wise to add the following rather obvious but apparently often-forgotten advice:

Fill the kerosene or gasoline lamp when it is thoroughly cold and away from the stove or open flame.

Keep the holes in burners clean and open to avoid explosion. Trim wicks and turn them down when not in use to prevent liquid from flowing out over the lamp.

Studies have shown that seeing may require 25 percent of one's energy.

If there's any doubt about the adequacy of light in a home, a light meter which measures in foot-candles the amount of light on a surface will serve as a guide. Most utility companies are glad to loan their light meters—it is not the type of equipment most families would want to own. Such companies in larger towns or lighting departments in large stores often have home service workers who will be glad to come into the home and help the homemaker measure her lighting adequacy.

Less than 10 foot-candles is not enough light—from 10 to 20 are needed for ordinary work. For somewhat closer work, such as washing green vegetables that might be "buggy," more light is needed. For letter writing, reading newspapers or other material printed finely or on inexpensive paper, foot-candles should measure higher. Sewing or other tasks that are prolonged and trying to the eyes require the most light.

In too many farm homes there is but one out-dated kerosene lamp used to light a room, as at the right. Good, modern gasoline or kerosene lamps can do effective jobs of lighting as shown below.