

Paintable With Paint

By J. F. SCHAFFHAUSEN

There's a proper mix for the need, and places where even the best won't last until the weather conditions are corrected.

"HOW do I go about getting a good paint job on this farm for a change?" asked my friend Bill. "I have to do some repainting this spring, but I don't want to guess about paints again."

"But why must you guess? All you need is a pair of good paint and a brush. You can get that at any corner paint store."

"That's what I've heard for years, but look at my buildings. The paint is curled, cracked and washed off, and worst of all, on the barn I didn't even get the weather protection I expected," complained Bill, who had induced me to visit his 340-acre diversified farm after the Brantford show, because he wanted help on his paint problem. Like most farmers he has pride in his buildings and wants his farm to be as attractive as the productivity of his fields will permit.

"I know how it is, Bill; formulas don't mean a thing unless you know what to expect of the various mixtures. Frequently the chap in the city paint store whom you ask for advice doesn't tell you the whole story, because most of the information is so commonplace to him. Let's go out and see those buildings you intend to paint," I suggested, "but before we do let me tell you a little about a few of the different kinds of paints."

In my opinion, I told Bill, the best all-around paint for farmhouses and service buildings, if you repaint about every five years, is oil-laden lead and oil which you mix yourself. The important advantage of this type of paint are first, that you can buy it in paint form which is essentially a standard product. Second, it is usually cheaper than other whites of comparable quality. When properly mixed and applied it has a tendency to wear down very slowly and uniformly by crumbling, but leaves an easy surface to repaint. A preliminary dusting is all that a properly applied white lead paint surface needs at repainting time. This should be important to you, if you don't paint frequently.

If you want white-lead and oil paint, but don't want to mix it yourself, you can buy it in a prepared form ready for use. If it is pure lead and oil, the formula on the can should read:

Pigment by weight	per cent	per cent
Basic carbonate, white lead	71	Lead oil 80
Liquid by weight	70	Turpentine 14
	126	126

To be a good quality lead-and-oil paint, it must contain a minimum of 70 per cent white-lead pigment.

Higher prepared paints in many cases have certain advantages over straight lead-and-oil paint. The manufacturers of prepared paints, as a rule, add a quantity of zinc oxide to the white lead to give you a harder paint and one which does not wear down from the surface quite so readily. But it is more likely to crack. Increased hiding power is given by adding a small amount of titanium pigment, which is highly opaque. The mixture of zinc oxide and titanium has caused to your condition depends upon the conditions under which the paint is expected to perform, the type of work you are painting and the length of time you allow to elapse before

repainting. A good formula for a medium content white-lead-and-zinc-oxide paint, used by many farmers, is:

Pigment by weight	per cent	per cent
Basic carbonate, white lead	17	17
Basic sulphate, white lead	17	17
Zinc oxide	36	36
Titanium-dioxide	34	34
	104	104
Liquid by weight	per cent	per cent
Lead oil	80	80
Mixed spirits and turp.	14	14
	126	126

This formula offers long freedom from cracking and chalking, but the retention when made with alkali-resistant titanium dioxide, but you may expect a good deal of scraping and sanding to remove loose and curling paint when you do repaint, if you don't repaint about every four years.

Then there is a high-content white-lead-and-zinc-oxide paint, with white lead predominating. This type of paint chinks early, but usually doesn't develop more serious delamination. Its advantage is that it is easy to prepare for repainting.

The important thing about any paint is to select a good quality paint of a well-known brand for your work, then keep the formula you use. Whenever you repaint use the same formula. If you don't, you take a chance that your paint may deteriorate rapidly.

"Well, what about aluminum paint?" Bill asked after I'd gone into detail. "I've used some with very good results, but the last work my neighbor did with it didn't stand up."

"Let's call aluminum paint a primer," I said, "because it is very good on new woodwork, especially on hard-to-paint woods like Douglas fir, ponderosa pine and flintstone pine. It does not flake off these woods so easily as other paints, but I have found that for uniform results, the aluminum paint must be made for exterior use on new wood. I would always make sure that this statement was on the container."

"Another recent development in the special priming paint for use with house paint. It is commonly called 'undercoating' or 'house-paint primer.' When it is of good quality and used according to directions it is said to be far superior to the older method of thinning down regular paint. I would suggest that the finishing paint as well as the primer be purchased from the same manufacturer whenever you use it."

"Now how about a look at the buildings?" "It might be well to look at the barn first," Bill suggested. "The white paint didn't stand up so well, and quite a lot of scaling has set in."

When we got to the barn and looked inside as well as out, I don't explain to Bill that white paint of good quality cannot be expected to last much over five years. Under most conditions four years is a better average. But in his particular condition, I doubt whether any paint would have stayed on the barn. Most of the moisture, as in many barns I have seen, was seeping through the walls in the form of water vapor or condensing.

Don't Gamble With Paint

into water on the windows and ceilings. Moisture working out from the inside of the building in this way collects under the paint film and causes the blistering and the peeling. Such a barn needs a good ventilating system along with some insulation to help that system do its work. If your barn needs this work, you should vapor-seal the interior side walls and ceilings too. With a good ventilating system, insulation and vapor-proofed side walls and ceilings, your problem will be over. After you have corrected the condition, allow the wood to dry out thoroughly. Then scrape and sand off all blistered areas. Touch up the bare spots and new material with a priming coat before the body and finishing coats are applied.

If you build a new milking barn with wood siding, you can avoid the possibility of this type of failure by priming the siding on all four sides before you put it up. One of the other benefits resulting from priming grooved lumber, such as dropped siding and shouling, is that priming the edges and both ends tends to prevent warping and keeps the siding from shrinking and opening between laps.

Priming new lumber before using saves enough labor, when compared with priming side walls after construction, to almost pay for the material used.

"Would a color increase the life of the paint?" Bill asked.

"In some instances, Bill. Red barn paint of good quality can be expected to last from seven to ten years. It should contain no less than 40 per cent pigment, of which 25 per cent should be ferric oxide. The balance of the pigment should be calcium sulphate or carbonate. A small percentage of zinc oxide in the pigment is desirable. The liquid should contain not more than 15 per cent mineral spirits and driers. There should definitely be no water in the formula. One third of the liquid may be soybean oil and a small portion of rosin, but the balance of the liquid should be linseed oil. When varnish is included in red-paint formulas it gives the paint a high gloss and more resistance to fading, but too much varnish or poor quality varnish impairs durability and makes it difficult to apply enough paint. The difference in price between good quality

white paint and red barn paint should be very small."

"That is interesting," Bill replied. "I thought red barn paint was always very cheap. Come over to the machine shed next. I used a different paint on it and it is scaling away. Why should this happen? It is not cheap paint."

"This scaling and flaking could have been prevented by using the aluminum primer I mentioned earlier. The Douglas fir siding has very wide annular rings, arranged alternately, of a very hard summer band and very soft spring growth as you can readily see. Such structure does not lend itself to a prime coating of ordinary paint. Aluminum paint markedly retards the flaking, but I would follow the priming with two coats of white to hide the metallic color. When you repaint, remove all the old paint, otherwise it will continue to scale away carrying the new paint with it."

"I'll do that," he answered, "but would you mind looking at the door and window frames? The paint wrinkled badly. In fact, I noticed it on the house window frames, too, when I put up the screens last spring."

"That," I told him, "is one of the most common complaints in painting. The paint was applied too thick. The surface then dried quickly, leaving undried paint under it. When this dried later on, it caused the wrinkling you see. This condition can be avoided by thinning down your paints and brushing out such coats. Where wrinkling is particularly bad it is best to remove all the old paint. I would use a paint remover instead of a blow torch."

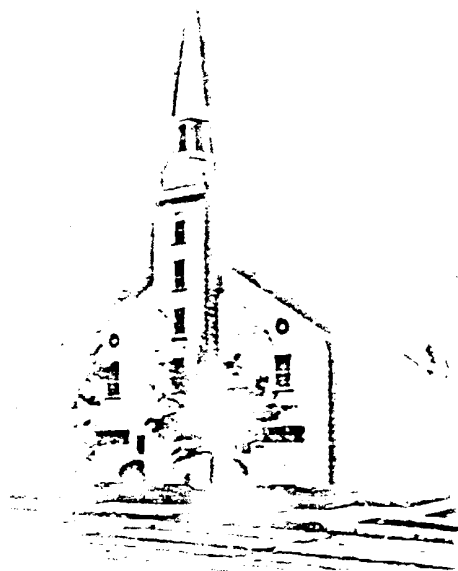
"Actually, Bill, except for the barn, your buildings are not in bad shape. The principal mistake you made was in not painting often enough. Why don't you try to think of paint as necessary insurance to protect your investment in these frame buildings? Set up a regular paint-maintenance program. Repaint every three or four years where you use the lighter colors, every six to eight years on your red buildings. Then you will have the attractive buildings you want and, in addition, you will be saving yourself considerable maintenance cost by not having to replace decayed and warped lumber. Your paint jobs, too, will take less work at repainting time."

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Always in Style

Lumber and paint make beautiful, comfortable, long-lasting homes at just about the lowest construction costs possible—stylish homes anyone is proud to own always. The many lovely colonial landmarks built of these materials and standing in good condition today after 200 and more years of service are proof of this. More than durability and low cost, however, lumber and paint have other advantages, advantages you want in your home, which no other materials can

give you so easily and economically. With lumber construction the beauty of your home can be kept permanently fresh and youthful by the use of paint. Color schemes can be selected to give even the most modest home an air of complete individuality. And, whereas restoring homes that are not designed for paint decoration is expensive, in many cases prohibitive, a brand new appearance can be given your paint-styled home at any time by simply a change of color scheme.



Beautiful church at Huntington, Long Island, N. Y., built in 1784. It has been painted with pure white lead paint throughout its entire life.

STYLING YOUR HOME

In homes, just as in clothes, style is the modern dress, and you want your home to create the best possible impression. People judge by what they see, and their first and most lasting impression of your new home will be the warmth of wood construction enhanced by the charm and beauty of paint. The paint film that clothes your home in the most up-to-date style, however, is this, about the thickness of this sheet of paper. Consequently, this thin film must be good paint, if you wish to create a continuously favorable impression, for paint must beautifully and protect your home not merely when first applied, but year after year.

WHAT PAINT TO USE

By using good paint you can have all the advantages of styled lumber houses at low cost, with your paint in expensive. Fortunately, pure white lead paint—and the one sure way to have good paint on your home is to require white lead—is available everywhere for beautifying and protecting your new home at a real saving because it gives such dependable service and lasting decoration at low cost. It is the paint on which wares and specifiers of large quantities of paint, people who know best, depend. White lead is the expert's choice, the most durable material that beautifies more well known government buildings and landmarks, as well as the most expensive residences and modern homes throughout the country.

WHO ARE THE EXPERTS?

Architects and painting contractors are experts. Therefore, it is significant that representative surveys reveal that 86 per cent of painting contractors use pure white lead on their own homes, and nearly 70 per cent of architects specify pure white lead for exterior wood painting, safeguarding their reputation as reliable advisers. The Federal Government relies heavily on white lead, most famous government buildings are painted with it, as well as over 1,000 small houses and farm structures covered by the Farm Security Administration, some of which are sold to farmers on a preferential payment plan. "Commonsense" published by the United States Department of Agriculture, gives the following advice when discussing pure white lead paint:

STYLE YOUR HOME IN THESE ATTRACTIVE COLORS

Recommended by the Chairman of the Technical Committee of the Council for Paint Styling

STYLE FOR DESIGN NO. 48-1

	STYLE 1	STYLE 2
Roof	Grey	Tan-red
Body	Light Lemon Yellow	White
Trim and Sash	White	White
Upper Shutters	Pale Cobalt Blue	Green
Lower Shutters	White	Green
Door	Pale Cobalt Blue	White
Chimney	White	White
Chimney Band	Pale Cobalt Blue	Tan-red

STYLE FOR DESIGN NO. 48-2

	STYLE 3	STYLE 4
Roof	Pale Green	Pale Vermilion Red
Body	White	White
Trim, Sash and Door	White	White
Shutters	Yellow	Blue
Windows	White	White
Chimney	White with black band	White

The exact colors referred to may be obtained by adding color-tint to soft paste white lead in the following amounts for each 100 lb. of white lead, and in the same proportions for smaller amounts:

Greyish pt. Lampblack
Light Lemon Yellowish pt. C. P. Chrome Yellow-Lemon
Pale Cobalt Blueish pt. Cobalt Blue
Pale Greenish pt. C. P. Chromium Oxide

Vermilion pt. C. P. Chrome Yellow-Medium
Pale Vermilion Redish pt. English Vermilion Red

Yellowish pt. Best Turkey Umber
Blueish pt. C. P. Prussian Blue and
1 pt. C. P. Chrome Green Dark

The following colors are straight color-tints and are used without adding them to white lead.

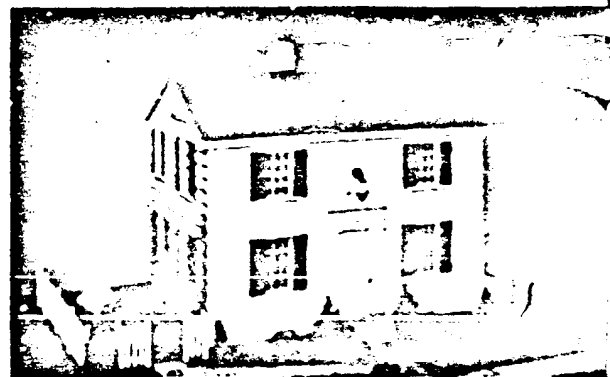
Tan-red—bright Tan-red
Shutter Green—bright C. P. Chromium Oxide

"This paint, if used exclusively, remains the best choice for home owners who wish to allow very long intervals, longer than the durability of any other white or leaded paint, to elapse between paint jobs." Paint specifications of many city and state governments depend upon pure white lead. For instance, the Department of Public Works in both New York City and New York State specify white lead almost exclusively. Moreover, more than 4,000,000 painting instruction leaflets and labels are sent out or enclosed annually by lumber manufacturers with their selling cash, and down all include directions for painting their lumber products with white lead.

WHY THE EXPERTS USE WHITE LEAD

Only years can test a paint, and that is why all these big wares of paint, experts who most know paint, depend on white lead. They have learned by experience with all wares of paints under all kinds of conditions that white lead gives best results. Only after a building has been repainted several times can you tell how the paint will really wear and how well the original coat has anchored itself to the surface painted. Few individual home owners have the opportunity to test paints for them-

The two small houses illustrated are well respected designs sponsored by the National Lumber Manufacturers Association in cooperation with the National Small House Demonstration, Inc., 1934 in an effort to help solve the problem of securing better housing for many people at lower cost.



Above, design No. 48-1, below, design No. 48-2. See table above for the color styling of these houses.

