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Cleveland

DATE Nov. 30, 1951

FOR Mr. H. W. Dell

SUBJECT

OCTOBER PRODUCT DEVELOPMENT REPORT
Paint, Varnish & Lacquer Laboratories

ANSWERING LETTER OF

Progress in the development of improved coatings is still being slowed by lack of critical items such as phthalic anhydride, rutile titanium, epoxy type resins and other phenolic resins. Consumers in a tightening market become more critical while key raw materials are still tight. Future trend still not definite.

Check your formulas and take full advantage of low cost soya.

Remember a competitive market is ripe for new products and low costs.

At the close of the fiscal year I wish to thank each of you for the effort you expended in helping to make this report a useful tool. I am sure you personally benefited not only in information you received from others but also the centering of your own thoughts on the work you have done and hope to do.

Much has been said and written of the pro and con of report writing. The attached article from RBH Dispersions called to my attention by Keith Piper is one of the best I have read.

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H. W. D.
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TRADE SALES PROGRESS REPORT
OCTOBER, 1951

House Paints:

Safflower Oil in House Paints: Exterior tests of Endurance House Paints containing Safflower oil have been examined after two years exposure. No film failures are shown. Chalking and cleaning appear to be equal where raw linseed oil was replaced. Tests will be continued to ultimate breakdown of the films. Indications are that the Safflower oil can be used in house paints at least in part for either raw linseed or soya oil.

Lead Silicate Pigments:

In May, 1949, five different lead silicate pigments were received from Goodlass Wall and Lead Industries, Std. These were evaluated against 45x lead silicate from National Lead in the (Y-1800-X) Endurance House Paint formula. Two coats of each paint was applied over a coat of Exterior Base Coat on cedar panels. Panels were exposed 45° South so as to give accelerated breakdown.

After twenty-eight months exposure the paints containing the Goodlass silicates show definite trends toward failure by cracking, checking and flaking. The paint containing 45x indicates that failure may start in six to eight months. Regular Y-1800-X made with 35% leaded zinc gives no indication of early failure.

House Paint - Self Priming:

The preferred recommendation for priming new wood is to apply our Exterior Base Coat Y-1851. However, if this is not obtainable, we give directions for reducing our house paints. The general recommendation is one quart of linseed oil and one pint of turpentine. We were desirous of knowing what difference there might be in durability of a three coat self-primed system if the first coat was reduced with two quarts of oil to the gallon instead of one quart. Endurance House Paint being a self-cleaning paint it is expected that it gradually erodes away. The two systems were put on one panel so as to eliminate or minimize effect of wood differences. Second and third coats were lapped so that sections were shown with one, two and three coats. At the end of six months, and through one summer no appreciable differences were noted. At end of 10½ months, #1 Primer (one coat section) in which house paint was reduced with only one quart of oil shows total erosion failure to the wood. #2 Primer (one coat section) which is house paint reduced with two quarts of oil, is chalking more slowly but still shows as a continuous film.

At end of fourteen months both primers are gone. At end of twenty months the two coat and three coat sections appear to be chalking more slowly over #2 Primer.

At end of twenty-eight months the two coat systems over both Primers are gone. The three coat system over #1 Primer is beginning to show through to the wood and the three coat system over #2 Primer is not far behind.

These tests show that two and three coat self-priming systems have limited durability even when extra oil is used for reducing the first coat. A house paint primer containing non-chalking pigments such as rutile titanium oxide is imperative for satisfactory two coat work.

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