
PICKERING SPRAYS.¹

By F. C. Cook.

[ABSTRACT.]

AN investigation was undertaken to determine the efficacy of the so-called Pickering, or Pickering limewater, sprays, prepared by mixing saturated limewater with dilute solutions of copper sulphate, as compared with that of the ordinary Bordeaux sprays. The results of this investigation indicate that, on potatoes in Maine, the Pickering sprays are twice as effective as the Bordeaux mixture per unit of copper present. The stimulating and protective action exerted on potato plants was the same for each kind of spray. Pickering sprays adhered to potato leaves in practically the same degree as the standard Bordeaux, to apple leaves in a somewhat higher proportion, and to grape leaves in a lower proportion. It was shown that while Pickering sprays can not be used on tender foliage, they do not injure hardy foliage, as cranberry and potato leaves. A spray of the Pickering type, in which the limewater was replaced by barium water, gave satisfactory results.

Using these results as a basis, it is probable that the various agricultural experiment stations, as well as other interested agencies, will be able to devise formulas for sprays containing less copper sulphate than standard Bordeaux, which will be as effective as the more expensive material for certain crops.

STUDIES IN NUTRITION IV. THE NUTRITIVE VALUE OF PEANUT FLOUR AS A SUPPLEMENT TO WHEAT FLOUR.²

By Carl O. Johns and A. J. Finks.

[ABSTRACT.]

A DIET containing bread made from wheat flour (74 per cent. extraction) when fed to albino rats as the only source of protein and water-soluble vitamine, together with an adequate

* Communicated by the Chief of the Bureau.

¹ Bul. 866, issued August, 1920.

² Published in the *Jour. Biol. Chem.*, **42** (1920), 569.