MALACHITE GREEN DYE

As A Color Indicator for Liquid Fertilizer Solutions

By Harold E. White

Several inquiries from growers have been received as to what material can be added to liquid fertilizer solutions to serve as a color indicator when applying such solutions.

In reply to the inquiries the material recommended for such a purpose has been a dye known as Malachite Green or Victoria Green WB. The reason for recommending this particular dye is that many growers, at least rose growers, may still have this dye on hand as the material for quite a few years was used as a very effective eradicator for mildew on plants; also, for the reason that the material has been safely used as a foliage spray on plants and there would be little question as to its toxicity to plants. There probably are many other dyes that may serve the same purpose such as the common dyes used by the florists to color or tint cut flowers.

The need for use of dyes as color indicators would seem to be limited to cases when the fertilizer salts in water solution are applied by means of an injector or proportioning gadget which is attached to the hose watering system. These pieces of equipment are quite variable in design as well as to delivery of solutions and rate of dilution. The latter points being determined by the gadget itself and conditions under which it is being used. It would be well for the grower to determine for himself just what performance a particular piece of equipment will give with local water systems.

As far as the writer is aware, no data have been pub-

lished on the exact amounts of particular dyes to add to solutions that are to be diluted as they are applied by injectors or proportioning gadgets. This fact need not be of great concern, for all one needs to do is to determine the amount of dye to use in order to obtain a solution that, as it comes from the hose, shows a readily detectable color. The quantity of dye necessary is relatively small.

In case of Malachite Green tests made under our conditions a ¼ measuring teaspoonful of the dye in 15 gallons of water gives a good visible color to the solution. The solution as prepared with the dye can be used to make the fertilizer stock solution that is to be applied by the injector or other proportioning device.