

## USE VAPONA AT LOW TEMPERATURES

Recent work at the USDA Agricultural Research Center at Beltsville, Md. has shown that Vaponavapor bombs will give effective control of aphids, mealybugs, mites, etc. at temperatures as low as 60°. The minimum recommended greenhouse temperature for other bomb formulations is 70°, which temperature is often hard to obtain for even an hour or two during the winter. Vapona can be used at a lower temperature because of its higher vapor pressure, and therefore its rapid action, and greater penetrating ability.

A greenhouse temperature of 80° is recommended and preferred and should be maintained for one or two hours following the bombing with all of the bomb formulations, except the Mul-T-Vapor DDT. (Since DDT bombs have no fumigating action, but deposit a residue, the temperature of the greenhouse is not important, although the temperature of the bomb is very important.) The higher greenhouse temperature increases the activity of the pests present, and the amount of pesticide taken up by the insect or mite whether it be through the breathing organs, or through the body. The higher temperature also increases the penetration of the pesticide into the buds and other hiding places where the aphid or mite often escapes the deadly effects of aerosol droplets.

During the past winter the Vapona bomb has repeatedly proven its effectiveness where the 80° temperature could not be obtained. Its quick kill and the speed with which Vaponavapor disappears from the greenhouse are also particularly desirable during the colder months. One hour is long enough to keep the greenhouse closed when Vaponavapor is used.

It is interesting that a weak Vapona bomb has been approved for use in the home for the control of household and flower pests. It would not be economical to use this in the commercial greenhouse.

While Vaponavapor has proven quite safe on most greenhouse crops we must repeat the caution of the September, 1962 Edco News Letter that Vapona will burn the leaves of a few varieties of chrysanthemums, of which Shasta is the most important. While the injury to the leaves may be serious, the flowers are not affected. Wandering Jew is also susceptible to Vapona. With varieties about which there is any question the greenhouse should not be kept closed more than one hour, and might be opened after 30 minutes.