

On the basis of this very limited experience we offer these observations for whatever they may be worth:

1. Both application rates had the same apparent effect.
2. Varsol should not be used on locust seedlings while stems are succulent.
3. Later application caused only temporary defoliation.
4. Spraying from above after the seedling canopy has closed does no good. To be effective spray would have to be applied below the canopy.
5. Seedling production on the four beds was cut about one-half by the spray and weed competition.

#### STUDY OF METHYL-BROMIDE AS WEED CONTROL IN PARSONS NURSERY

D. A. Oliver

Nurseryman, Parsons Nursery, U. S. F. S., Parsons, West Virginia

The study of methyl-bromide as a weed control in the Parsons Nursery was started in 1949. On June 1, one of the standard seedbeds, prepared for spring-sowing, was treated with Dowfume MC-2 under a gas-tight cover. The bed had been prepared in the usual manner by tilling to a depth of 6 to 8 inches with a Seamantiller. After tilling the bed was covered with a sheet of Sisalkraft paper supported above the soil on small wooden horses and covered around the edges with soil shoveled from the paths.

The methyl-bromide was applied with the "Jiffy Applicator" at rates of one-half and one pound per one hundred square feet. The air temperature was 80°F at the time of treatment and minimum temperatures were 44aF while maxima remained at 80°F for the period of treatment. The gas-tight cover was removed on June 3 after being in place 44 hours.

Unfortunately, we were unable to seed this bed to red pine as planned so the effect of the treatment on seedling emergence and growth could not be observed. For nearly a month after treatment this bed showed only two weeds and these were perennial vetch. A few volunteer black locust seedlings also emerged. After six weeks time only a small number of weeds were present and practically no grass at all. At the end of this period, adjacent, untreated beds were a solid mass of weeds and crabgrass up to 24 inches in height. Conditions for weed growth were excellent with generally high temperatures and a total of 9.89" of rainfall during

the period. of 6 weeks. At the end of the growing season the plots had only a few scattered clumps of crabgrass and vetch and some miscellaneous weeds. There was no appreciable difference in the plot with the recommended treatment of one-pound per one-hundred square feet and that with one-half this amount. At the end of 1950 the plots could still be readily picked out on the ground while the adjacent beds had a well-established mat of weeds and. grass.

Cost of this method of weed control should compare favorably with that of applying mineral spirits. The latter, under ParFons conditions, has proved only partially successful. The initial investment in gas-proof covers would be high if plastic-coated fabric were used but, properly cared for, they would last for a long time. One type of material was quoted at \$0.15 per square foot. Asphalted paper would be cheaper but has a relatively short life.

While the gas temporarily halts growth of all sorts in the soil, it is felt that bacteriological balances will be readily re-established from the adjacent seedbed paths. Given funds with which to operate, it should be a relatively simple matter to devise a machine, mounted on a tractor, which would open trenches in the paths, reel out the cover, and bind and seal the edges.

CONTROL OF WEEDS WITH DGNZYUME MC-2 IN WOODY STOCK PRODUCTION  
AT THE ALBUQUERQUE SCS NURSERY

G. C. Niner

Horticulturist, Soil Conservation Service, Albuquerque, New Mexico

For a number of years we have used 2,4-D as an indirect control of weeds in the area under sprinkling system where most of our woody stock is grown. This indirect control has been done by spraying fallowed areas, borders, surrounding waste areas, and grass-sodded areas in the soil-improvement stage of rotation. Sometimes very local applications of 2,4-D have been made in nursery plantings on individual plants of bindweed. We have had good results in the eradication of bindweed and in the control of horse-nettle. The latter species seems to be very difficult to eradicate, though we probably have not expended as much energy on this species as on bindweed. Fair control of nutgrass with 2,4-D has been obtained where applied on borders, under sprinkling lines, and other areas where a high density of this weed occurred.

Diesel oil and kerosene have been tried as a spray in the control of weeds on borders and. under sprinkling lines and were found fairly effective,