## Banvel-D and Bandane for Turf Weeds

By RICHARD N. CROWL Velsicol Chemical Corp., Chicago, Illinois

Phenoxy herbicides have long been of economic importance for post-emergence control of many broadleaf weeds in turf. The phenoxy family of herbicides is undoubtedly the best known group of weed killers presently on the market.

However, with the advancement in strains of grass and increased problems in turf from weeds not controlled by the phenoxy group, demand for new herbicides has increased. For example, greater soil compaction from the use of larger equipment and electric golf carts has increased the population of knotweed in turf. Also, clover, sometimes considered a desirable plant, has become undesirable in many areas.

New herbicides are also in demand for other reasons. Many weeds, such as chickweed, grow when temperatures are between 45 and 50°. It is important to control these weeds in their early stage so the desirable grasses will have less competition.

Banvel-D 4-S was introduced by Velsicol to the turf market to meet this demand. This chemical has given excellent control of weeds in turf that were previously hard to control without injury to desirable grasses.

The herbicide (4 lb./2-methoxy-3, 6-dichlorobenzoic acid per gallon) is a water soluble material for ease of dilution in sprayers. It is a dark-colored liquid in formulation and is stable at temperatures to  $-5^{\circ}$ F. Any increased density at lower temperatures will decrease as the temperatures increase and the chemical will return to its original soluble state without heating or agitation as temperatures rise. Also, Banvel-D 4-S remains stable in direct sunlight.

Control of knotweed, chick-

weed, white clover, sheep sorrel, curly dock, and dogfennel, can be obtained anytime the weed is actively growing in bluegrass, bermudagrass, St. Augustine, centipedegrass or bentgrass with Banvel-D 4-S at rates from  $\frac{1}{2}$  to 1 pound per acre. Also, promising results have been obtained in many areas on control of dandelions, creeping-charlie, and henbit.

Desirable grass seed may also be sown one month before or after application of this weedkiller. This permits contract applicators to seed previously weed-infested areas during the same growing season.

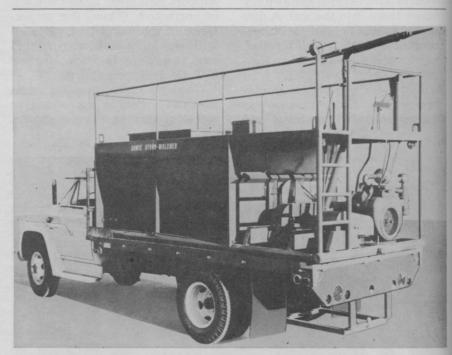
Another cultural practice that has grown rapidly in the past few years is pre-emergence control of crabgrass. Because of the thousands of seeds produced by one crabgrass plant, this problem needs constant attention.

A formulation containing Banvel-D, Velsicol's broad spectrum herbicide, plus 2,4-D for use on lawns, turf (not pastures) and golf fairways, aprons, tees and rough has just been approved.

Bandane, (polychlorodicyclopentadiene isomers) a pre-emergence herbicide developed by Velsicol Chemical Corp., is available to turf growers in granular form. It combines crabgrass control, insect control, safety to desirable grasses, into one chemical for better turf.

Bandane applied at rates of 30-35 pounds actual per acre has given crabgrass control without injury to grasses such as bentgrass, bluegrass, bermuda, zoysia, St. Augustine and centipede.

Bandane is a chlorinated hydrocarbon and has little or no post-emergence activity, therefore, it must be applied before crabgrass germinates.



Seeds, fertilizers, Turfiber and sprigs can be applied with Bowie's new Hydro-Mulcher. The device, called the 1500 Gallon Chief, can cover up to half an acre in 8 minutes with its spray reach of 200 ft. Equipped with a 60.5 horsepower, 154 cu. in. air cooled engine complete with starter, generator, and main drive clutch, the Hydro-Mulcher has a 108 Dodge pump clutch and a heavy duty skid of 4 in. pipe. A catalyzed epoxy coat inside the tank and an agitator help prevent rust and corrosion. Other features include a gate valve inside the tank to hold slury away from the pump, belt and chain drive throughout, a horn signal device and a choice of either 3500/IB/F Bowie Pump or 4 by 3 in. centrifugal pump (for seeding operations only). Boll bearing support and top mounted controls add to the machine's usefulness, according to Bowies. Five nozzles for close, medium and long range spraying and auxiliary gas tanks for all day operations round out the Hydro-Mulcher's equipment. Bowie Machine Works, P.O. Box 630, Bowie, Tex. will furnish more information to WTT readers who write the company.