#### CRAB GRASS CONTROL

#### **Recommendations For 1963**

Another year of using, testing and evaluating preemergence crabgrass control passed last year and, if nothing else, the results showed that no chemical now available can be completely depended upon to control crabgrass in a satisfactory manner and still not injure the established desired turgrasses. Because of this, no one material is worthy of blanket approval at this time.

#### DACTHAL AND ZYTRON

Dacthal and Zytron continue to give excellent control. Both are quite safe on the bluegrass varieties. Some injury has occurred from time to time on the fescues although this is the exception and not the rule and these materials are worthy of trial.

#### ARSENICALS

Calcium arsenate has also given consistently good control though possibly not as good as Dacthal and Zytron. Crabgrass rates of Calcium arsenate provide adequate grub control. Minor discoloration of the perennial grasses has occasionally occurred and at times annual blue grass is destroyed. All arsenicals must be handled and stored with care to protect the user and his children against accidental poisoning.

#### CHLORDANE AND BANDANE

Chlordane is much less toxic to humans than are the arsenicals and gives good to excellent control. Higher rates generally give excellent control. (60 pounds per acre commonly recommended but 80 pounds per acre is needed for best results). Chlordane is the least likely to injure turf and generally the most which may occur is only some temporary yellowing. Chlordane, at the crabgrass rates, gives excellent grub control. (As the grubproof rate of chlordane is only 10 pounds per acre the grubproof rate will not give crabgrass control.)

Bandane is similar to Chlordane. At 45 pounds per acre rates control was excellent. At 30 pounds per acre rates control was not satisfactory. This material is as safe as chlordane to turf.

#### CALCIUM PROPYL ARSENATE

Calcium Propyl Arsenate (C.P.A.) had a poor rating last year. Since then its strong points have been found out and good to excellent results have been obtained when applications were made in *late spring*, just prior to crabgrass germination. For late season control perhaps this material or Zytron would be a better choice for trial.

#### DIPHENTRILE

Diphentrile was first marketed in 1961 and at first results were erratic. Where higher rates have been used this material has been found dependably effective giving excellent control.

#### POST EMERGENCE MATERIALS

Highly effective and highly dependable are the materials which are available for crabgrass control once the crabgrass has germinated. Should your lawn become weakened and thinned in the early growing season and you see crabgrass which is starting to germinate and which will compete with desirable turf grasses you should consider using one of the following materials. The only point against these materials is they require three sprays at two week intervals.

### ARSENATES

DMA and AMA are two arsenical materials which perform dependably for selective control. Applications should begin when young seedlings are just germinating.

#### PHENYL MERCURY

PMA is less effective in late season control. Some yellowing may occur on Merion blugress with the use of this material but it is safe on all other grasses.

#### **IRRIGATION FACTS**

by C. E. Stewart, Irrigation Engineer

When waterng fairways, tees or greens the layer of water applied by the sprinkler in a given time is often required.

The following formula gives the amount applied in one hour by any sprinkler, provided the following is known.

1. The discharge of the sprinkler in gallons per minute. 2. The diameter of the circular area covered by the sprinkler in feet.

#### 122 x G.P.M.

Diameter (squared) = inches per hour.

#### 122 x 15

100 x 100 which equals 0.183 inches per hour.

The discharge in gallons per minute can usually be obtained from the sprinkler manuafcturer catalog, once the water pressure AT THE SPRINKLER is known. A pressure gauge should be fitted at the base of the sprinkler while it is in operation in order to find the true water pressure.

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of the grounds keeper to maintain and correct the sprinklers and the control mechanism to adjust flow rates and keep the system in operation in the same fashion as a modern automated factory.

Another accurate method in determining the true sprinkler discharge is to attach the sprinkler to a hose and turn it upside down into a container and catch all of the water for a given period. Then weigh the water and be sure to subtract the weight of the container. One gallon of water weighs 8.3 pounds, so by dividing the weight of the water by 8.3 the gallons discharged from the sprinkler is obtained, this amount must of course be further divided by the number of minutes the sprinkler was allowed to discharge into the container in order to know the gallons discharged per minute.

The problem often arises on golf courses for greater volumes of water in the distribution pipe system and the superintendent is often faced with installing new and larger pipe lines or boosting the existing capacity of the existing pipe line with a parallel feeder pipe.



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