chandise and the stuff sold on price alone isn't enough to keep the players away from the top merchandise, Syron has found.

The apparel and bag display rack in the center of the pro shop is worthy of study. It sells goods. Another interesting detail of the Syron shop is the "punch board" display of accessories which can be seen at the far end of the shop (to the right of the overhead heat outlet). This is composition material into which display hangers are pressed and altered in location as the merchandise is changed.

Flooring is ½ in. rubber-composition tiling which has shown no signs of wear thus far, although traffic has been heavy.

The accompanying picture of Frank's shop was taken from the entrance. Notice that the ball coutner and cash register are at the back so the traffic in the staple that's most sold must come deep into the shop.

There has been \$80,000 invested in these new improvements and because that \$80,000 has been spent where the Pontiac CC players will get superior service you can bet that the investment will pay the Syrons a good return.

## USGA Reports Findings of 1951 National Crabgrass Trials

(Coordinated by USGA Green Section)
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(GCSA Paper)

In the year 1951 research workers and manufacturers of herbicides unanimously agreed that there was a need for a National coordinated crabgrass trials. The herbicides selected by most were phenylmercuric acetate, potassium cyanate, and sodium arsenite.

The National Coordinated Crabgrass Trials included these three individual series of trials:

- 1. The Early Series. The first herbicidal application was applied when the crabgrass seedling was in the 2 to 3 leaf stage. Then two additional applications for a total of three were applied at intervals of 7 to 10 days.
- 2. The Late Series. The first herbicidal application was applied when the seedhead emerged approximately 1 inch out of the boot. Two additional applications were made at intervals of 7 to 10 days.
- 3. The Early-Late Series. The first three applications were made at the same time as the Early Series. Three additional applications were made, at the same time as the Late Series; thus, combining the two series.

Each series was set-up in a Latin square design, replicated 4 times.

The rates of application for each herbicide were as follows:

- (a) phenyl mercuric acetate (10%) at 5 pints to the acre
- (b) potassium cyanate (91%) at 8 pounds to the acre
- (c) sodium arsenite (90%) at 1 pound to the acre
- 1. There is a best time and a best set of conditions for the use of each of the herbicides tested.
- 2. Under most conditions, PMA affords the best control of seedling crabgrass. On bermudagrass turf any of the three chemicals effectively control seedling crabgrass with three applications. Residual properties appear to be of less importance in bermudagrass turf as bermudagrass, if given a slight edge, will fight its own battle against crabgrass reinfestation.
- PMA appears to be the safest herbicide of the three tested (at these rates) when soil moisture conditions are below optimum.
- 4. Where more than three herbicidal applications are made, all chemicals materially reduce the crabgrass population. Other factors, such as cost of herbicide, effect on permanent turf grasses, ease of handling, and toxicity to man and animal, should be weighed carefully before a choice of an herbicide is made.
- Potassium cyanate and sodium arsenite appear to be the most efficient on mature crabgrass.
- 6. Soil moisture is an extremely critical factor when considering the use of sodium arsenite as injury to permanent turf is more severe at low soil moisture.
- 7. Each herbicide applied at the rates used in these trials can be used effectively in thinning-out the crabgrass population. Proper management practices can then enter the picture, to help the permanent grasses to fight their own battles against crabgrass.
- 8. Chemical control of crabgrass must be considered in its proper perspective, as a useful tool which can be utilized along with good management practices on the proper types of permanent grasses to provide better and lasting turf.

Summary and conclusions were obtained from a combined statistical analysis of results obtained by workers from the following states: California, Kansas, Indiana, Minnesota, Nebraska, Ohio, Pennsylvania, Rhode Island, and Texas.

## Need Supplies?—See page 101