GOLFDOM asked men in charge of courses that have been in fine condition this year to select some ideas from the 1953 Golf Course Superintendents' Assn. convention addresses that have been profitably applied in their work this year.

None of the men questioned was inclined to estimate the dollar-and-cents value of the ideas. Nevertheless they were positive that in each case the savings to the club and the value of improved condition in increasing play far more than justified expenses in money and time of conference attendance.

Among the conference ideas (and their sources) were:

**WEED CONTROL**
*By B. H. GRIGSBY*

On recently established turf the major weed problem often is that of controlling annual weeds which germinate more rapidly than most perennial grasses. In this problem, time is the determining factor and the customary clipping of the turf is usually the best control measure. Ragweed, pigweed, lamb's quarters and similar species seldom recover from clipping done when the weeds are 4 to 6 inches in height.

The use of 2,4-D on such a weed problem is not necessary and, as a matter of fact, may do more harm than good. Young grass seedlings are not immune to the action of 2,4-D and the temporary retarding of growth which can follow application of 2,4-D may permit resistant weed species to become established, thus causing a problem to develop which possibly may not have occurred if resort to chemical treatment had been delayed.

Control of crabgrass is a difficult task on any turf area and once the grass has become widespread the problem tends to increase rather than decline. Here, perhaps more than in any other weed problem, the condition is an indicator of errors in previous management practices. For instance, destruction of broad-leaved weeds without attention to reseeding the treated areas is an open invitation to crabgrass invasion.

Within the past three or four seasons abundant data have been gathered which show that chemical control of crabgrass is possible without undue risk to turf or animal life. Various formulations of phenyl mercuric acetate, potassium cyanate and special refined oils, when used according to manufacturer's directions will control crabgrass. Timing of the application of these herbicides is of critical importance and generally treatments must be applied to young crabgrass. Some discoloration in the treated areas may occur, but is of a temporary nature and soon disappears.

Two years of experiments in Michigan have shown that a mixture of chlordane and deodorized highly refined kerosene-type oils is effective on crabgrass at any stage of growth. A dosage of 6 ounces of a 74 percent concentrate of chlordane in 1 gallon of suitable oil per 1,000 square feet will destroy crabgrass within 3-5 days' time. Blue grass is not affected by the treatment, bentgrasses may show slight yellowing, but are not killed and fescues may be severely burned.

**RESEARCH**
*By GILBERT H. AHLGREN*

At the turn of the century fairways and greens were much smaller than those of today. Sheep and rabbits were used for mowing instead of efficient machines. Thin grass received no fattening diet of well chosen plant nutrients. Fungicides and insecticides for disease and insect control had barely been conceived. Selective herbicides were considered impossible. Picture with me the kind of turf you would have today without the advances that science has made. It has been a long step from the thin, rabbit and sheep mowed grass to the trim, well-groomed fairways and greens of today.

Chemicals for selective weed control were generally in disrepute until 10 years ago. Strong caustic action without sufficient selectivity characterized these early herbicides.

The discovery of the selective weed-killing properties of 2,4-D and related compounds opened up a whole new era in man's ageless battle against weeds. The finding of this amazing broad-leaved weed killer was shortly followed by the discovery in 1946 by the Rhode Island