**Improved Maintenance**

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period and the nuisance and cost of hand-weeding in those low-wage days.

Can we say there has been comparable improvement in machinery use as we consider all phases of the advance that has been made in mechanized maintenance? The percentage of labor cost in today's maintenance budget is about the same as it was 25 years ago. Certainly, the standard of course condition is much higher than it was a quarter century ago and the work schedule must be accommodated to much heavier traffic hence, theoretically, much larger revenue.

**Imagination Widens**

**Use of Chemicals**

By J. DAVID HEISS

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To lower costs or control them while preserving high standards of maintenance at Cascade Hills, we have built and equipped a new maintenance building, have bought large hydraulic mowers and have applied automation to our watering. These features are part of the pattern of progress at most clubs.

In one important respect we think we have made some advances that are now rather uncommon, but which probably will be standard practice at many courses in the future.

We have found that the proper use of chemicals has meant considerable labor saving in some areas in addition to improvement in course appearance and playability.

For example, we have a large orchard of old apple trees. The blossoms are pretty but in the fall it consumes a lot of labor to rake up the fruit as it falls. Since the trees are old the fruit is small and not good for eating. It is also time-consuming to pick the apples. We now use a naphthalene acetic acid to set the blossoms so the apples will not form. This does not hurt the tree or affect the blossoms.

We have some hard-to-mow areas on
our course. To these we apply Malic Hydrizide to reduce or stop growth. We also plan on using this material in the near future to eliminate the frequent hand trimming of the hedges and ornamentals around the club house. Power companies are using the product to reduce tree trimming around power lines.

We planted a number of small trees several years ago. We knew we should keep the ground around the trees open so the water could get to the roots easily. Open ground also keeps the large mowers from coming too close to the tree and breaking the bark. To hoe is time-consuming and even one week makes the area seem unkempt. We use Simizan which acts as a pre-emergence herbicide for any growth, yet will not harm any tree or ornamental even if sprayed on the foliage. We then dress the area with wood chips, leaving it somewhat beautified and more playable.

These cases are, I think, generally new in grounds maintenance. The use of chemicals is limited more by imagination than by any other factor Labor savings often pay for the chemicals. Today the supt. has only to recognize what he wants to get rid of and then select the proper material.

Drainage Renovation

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Burrows prepared a survey for city officials calling attention to the necessity and advantage of installing a new drainage system. In it, Burrows pointed out that the Glencoe course is inundated in spots until late in the spring and following heavy rains, many low areas remain under water for as long as a week. This, the Glencoe greenmaster pointed out, results in the onset of destructive diseases such as pythium.

Drainage Flow Reversed

“Forty years ago when the course was built,” Burrows’ survey continued, “Glencoe’s tile drainage system was adequate to carry off excess water. But with the construction of real estate developments in the vicinity of the club, outside water