

Trimnings

An entomology seminar scheduled for March 3, 4, and 5 in Denver, Colorado was recently finalized by the International Pesticide Applicators Assoc. The seminar consists of 21 hours of classroom training and testing headed by Dr. Dean Jamieson, vector control specialist, Santa Clara City Health Department. Certificates of completion will be issued to each successful participant. Interested persons should contact Dave Dixon, 620 S. Dalia St., Denver, Colo. 80222, telephone 303-399-2301.

Ah, for the days when a dollar was worth a dollar said the residents of West Hollywood, Calif. when they saw the bill for a recent street tree planting project. What began as a modest project ended up costing Los Angeles County taxpayers about \$180,000 or \$1,144.51 per tree. The money bought 157 magnolia, palm and laurel trees. Sidewalks were torn up, subsurface pipelines and wiring systems had to be dealt with and an underground irrigation system was installed for the trees. Individual cost of the trees ranged between \$90 and \$138 each, but an administrative decision to give them each an automatic watering system increased the cost of each tree tenfold. The original estimate for the watering system was \$18,000 — a 1971 estimate. Inflation and numerous problems encountered with underground utility pipes, vaults and wiring systems kept multiplying the cost.

Hormone weed killers are about to get a boost in England as the agricultural division of Burts and Harvey initiates an expansion program aimed at doubling production of monochloropropionic acid. The acid is vital to the production of hormone weed killers. Company officials estimate a large percentage of the increased production will be exported in the form of technical material for final formulation in overseas countries.

Helping nature with science are researchers looking into synthetic substitutes for the pyrethrum plant, considered one of the world's safest

and least toxic insecticides to man and animals. The new synthesized substitutes, while more effective against target insects, may be even less hazardous to people and animals than the natural product. Research conducted by USDA Agricultural Research Service (ARS) has proven the insecticide lethal to a wide range of insect pests.

It isn't nice to fool mother nature but researchers at Weyerhaeuser Co. are out to show that they can do her one better in the tree growing business. "Skipping the seed" and growing trees right from living cells is just one of the possibilities being ex-

plored. "Tissue culture will be the next big breakthrough in forestry," said Jess D. Daniels, a forest geneticist at Weyerhaeuser's Forest Research Center, Centralia, Wa. "Commercial growing of trees with tissue culture is only about five years away." Other ideas under investigation include suspension cultures, a batch of tissue that grows like yeast, and taking live cells from a seed to grow trees. "We can get 20 to 40 seedlings from one seed by doing this," said Jack Winjum, a forest regeneration research manager. Sex and the single tree, as one scientist described the research, holds the promise of major forestry breakthrough.

1975 Golf Course Market Study

There's little doubt that the cost of materials and labor is climbing at an alarming rate. And this is as true for the maintenance budget of the golf course as it is for everything else.

The 1975 Golf Course Market Study just completed by WEEDS TREES AND TURF shows just how much this striking trend in higher costs and larger budgets has progressed.

Net growth in dollar expenditures for the 18-hole golf course, for example, has increased more than 67 percent since 1969. Average budget for the 18-hole course is over \$96,000. This figure compared to the 1969 results of \$65,000 indicates an increase of \$31,000.

Tabulated returns from the course superintendents fell into three categories of courses; private, public and semi-private — the largest percentage, 67 percent, falling into the 18-hole category. This size course, in any of the three categories, showed the greatest percentage gain in gross dollar outlay for chemicals, fertilizer, equipment and labor.

Broken down, the new average budget for an 18-hole course, includes yearly outlays of \$4,440 for chemicals, \$6,323 for fertilizer, \$57,155 for labor and \$10,279 for equipment. Compared to 1969 results of \$3,000 for chemicals, \$4,700 for fertilizer, \$6,862

for equipment and \$32,200 for labor, the new budgets represent a substantial increase in each of the market areas.

A chart of yearly budgets for all size courses shows 20 percent of the respondents operating within the \$25,000 - \$34,900 category, 18 percent within \$100,000 - \$124,000 and 16 percent in the \$75,000 - \$99,900 range. The majority of the superintendents spent their yearly budgets operating 9- and 18-hole courses but others ranged to 81 holes.

Most owned items on the list of equipment include aerators, chemical applicators, mowers, dethatchers, chain saws and tractors. The superintendents indicated that flail, gang, reel, rotary and sickle bar mowers headed their equipment list at a rate of 12.3 mowers each. Aerators represented 55 percent ownership while gasoline carts edged out electric carts by a slim margin. However, over 50 percent of the respondents indicated owning either type of cart.

The biggest ticket item on the chemical and fertilizer budget is fertilizer at \$5,900, followed by fungicides, both contact and systemic, for a total of \$3,900 and preemergent crabgrass herbicides at \$1,200. The new averages represent at least 100 percent increases from the 1969 survey in all three categories. □