

W. H. Earle, director of the Papago Park garden, points out dark red cactus flowers.

a contractor to do the work, said another panelist.

"Often they don't get the quality of work they expected," said W. Roland Shannon, Shannon Tree Service, Milford, Pa.

"They need to remember that the contractor is a representative of the utility he's working for."

Shannon sees a public relations bonus for the utility or tree company that can find a way to decrease the visual brown out from brush-killing materials such as 2,4,5-T.

Safety awards were presented to Farrens Tree Service, Jacksonville, Fla.; Charles F. Irish Co., Warren, Mich., and Landscape Foresters, Ltd., Bronxville, N. Y.

USDA Bans Aldrin, Dieldrin For Aquatic Environments

USDA on Mar. 9 canceled federal registrations for all uses of aldrin and dieldrin insecticides in aquatic environments" in an effort to further reduce pollution of the nation's water resources and potential contamination of fish and other aquatic life."

ARS cancellation of aquatic uses includes all uses in marshes, wetlands, and adjacent areas including treatments for control of mosquito larvae, filter fly larvae in sewage systems, and tabanid larvae in outdoor areas.

Individual product cancellations

take effect 30 days after manufacturers receive cancellation letters from ARS.

Hybrid Spruce Developed At Michigan State University Has Fast Early Growth

A new hybrid spruce has been developed at Michigan State University that combines the early growth characteristics of the white spruce with the ornamental qualities of the blue spruce.

The hybrid was developed from a new cross between blue spruce and white spruce, reports Dr. James Hanover, Michigan State University forestry researcher.

The blue spruce is known for its ornamental qualities of form, appearance and drought resistance. Blue spruces are also used for Christmas trees and windbreaks, but are slow growing in their juvenile stage (the first 10 years). The white spruce is primarily a timber tree, fast growing in both its early and late stages.

Dr. Hanover has grown some of the new hybrid spruces to a height of 24 inches in less than two years under greenhouse cover. This year, although he will produce enough seedlings for further intensive testing in nurseries and plantations, he will not have seed for largescale release of them, he reports.

The hybrid was produced from man-made crosses because white spruce and blue spruce do not grow together naturally due to their adaptation to different climates.



2,4,5-T Issue Phony, Say Weed Experts

by THORNE GRAY Modesto, Calif.

Weed control experts are on the offensive in California to stand behind chemical herbicides, especially the controversial 2,4,5-T and its relative 2,4-D, in the face of what some consider a "phony" pesticide issue.

"This whole flap has no scientific meaning whatsoever, none whatsoever," is the way Professor Boysie E. Day of the horticultural science department at the University of California at Riverside summed up the controversy. "It's a phony issue."

Day and others made their views known in interviews during the 22nd annual California Weed Conference held in Anaheim Jan. 19 and 21. What to do about 2,4,5-T and 2,4-D, and what to do without them if they are restricted, were the hottest topics of conversation among the more



Day

rectly sprayed.

than 800 conference participants.

The herbicide 2,4,5-T came under

fire last October from Dr. Lee A.

DuBridge, science adviser to Presi-

dent Richard Nixon, who was

influenced by findings in a govern-

ment-contracted study by Bionetics

Research Laboratories. The studies,

since considered suspect because of

a chemical impurity in the samples

used, showed a correlation between

birth defects and deformities in lab-

oratory animals and exposure to the

pesticide. At about the same time,

other reports were linking the herbi-

cide to birth defects being noted in

Vietnam, where 2,4,5-T is used ex-

tensively as a jungle and brush defoliant and where pregnant Viet-

namese women may have been di-

Schweers

Elmore

Sylwester

significant quantity in the food environment at all," said Day, who said he made a special effort to find out what was motivating government sentiment against the chemical.

"Over the past two years in some 25,000 market place analyses, 2,4,5-T was discovered in three samples and the average rate of occurrence was about .008 parts per million in those," he said. "If we can assume this is an average, and that's a fair number of samples to base an average on, there is not enough 2,4,5-T in all the food in the world to affect one person if he could eat that much."

Day said the Bionetics study indicated a pregnant woman weighing 125 pounds would have to ingest about 250 milligrams per day for six days to "get near the threshold of

"2,4,5-T has never appeared in any





causing some birth defects." Based on the 25,000 food samples, he calculated the woman would have to eat no less than 1,000 tons of food per day just to consume one milligram of the herbicide. "I submit this is meaningless," he concluded.

Dr. E. P. "Dutch" Sylwester, a weed control specialist from Iowa State University and conference keynoter, said troubles with herbicides have arisen in many instances "from misuse rather than use."

"If we are using dangerous things, let's drop them so as to be beyond reproach," Sylwester said. "Let's use only the best. There are more than 800 materials, and not all of them pesticides, which are under close scrutiny but while they are at it, why not look at some of the things which we have always taken for granted like aspirin, tetraethyl lead, fingernail polish, turpentine, alcohol, tobacco or exhaust fumes."

Conference participant Clyde Elmore, a botanist and turf specialist from the University of California at Davis, stressed the importance of 2,4,5-T and 2,4-D to the turf industry.

"I would say if any homeowner is interested in killing weeds in his lawn, he would use one of these," Elmore said. "There is a tremendous acreage just in the homeowner and turf industries which could be or would be hampered by the loss of any one of the compounds in the 2,4,5-T family."

Elmore said an overdose or a misapplication of the herbicides is easy to detect from crop damage, and therefore the chemicals are not likely to be used near food crops or at strengths for which they are not registered. He also noted 2,4,5-T and 2,4-D break down relatively quickly into harmless components, in contrast to "persistent" pesticides such as DDT, and they do not accumulate in food chains.

"We know that weed control chemicals are safe if used according to label instructions and no one need worry about any chemical residue on their food," said UC farm adviser Vincent H. Schweers of Visalia. president of the weed conference. "Weed control chemicals are checked and rechecked and then registered with the federal and state governments for specific safe uses. The University of California gathers its own performance data and spot checks residue data on weed control chemicals before giving a University recommendation. As a follow-up, the federal Food and Drug Administration and the State Department of Agriculture participate in monitoring crops for residues. The facts are in our favor."

A Chewings Fescue Variety Licensed for Canada Use

A new turfgrass variety, Highlight Chewings Fescue, has been licensed for sale in Canada by the Canadian Department of Agriculture.

A product of Ontario Seed Cleaners and Dealers, Ltd., of Brampton, Ontario, Highlight is said to be the first variety of Chewings Fescue to show sufficient winter hardiness to be used safely across Canada. It has been tested and is in use also in the U.S. and Europe.

Ontario Seed Cleaners says Highlight should be used in a mixture with a blend of Kentucky Bluegrass for lawns and fairways. It can be blended 50/50 with Penncross Bentgrass in golf greens or other places where close mowing is desirable. The seed firm says Highlight tends to "lift" Penncross and reduces thatching.

Highlight is said to have good disease resistance, excellent color and fine texture, and ability to thrive under both sun and shade conditions.



MOBILE AERIAL TOWERS, INC. . Dept. N 2314 BOWSER AVENUE . FORT WAYNE, INDIANA 46803

Indian Joe Mechanizes Carving

"Indian Joe" Sylvester has rediscovered a lively and lucrative hobby — totem pole making.

He is a member of the Ojibway band at Christian Island in Georgian Bay, Canada — and after a 30-year layoff from totem pole making, his new creations now adorn the driveways of many summer cottages in the area.

"The totems I made years ago were completely carved by hand, but the labor costs were too high for the price they fetched," he recalls. "Now I've found a shortcut. I use a small Pioneer Holiday II saw to perform the rough cutting and finish the carving by hand later. It saves me about 25 hours work per pole."

A charcoal maker during the

Exhibitor Solicitation In Progress for 46th ISTC

Exhibit information has been mailed for the 46th annual convention of the International Shade Tree Conference.

General Chairman Fred Micha has announced that excellent exhibit areas are available at the Flagship-Rochester. The week-long convenspring and summer months when seasonal demand is good, Joe was formerly unemployed during the fall and winter. After making two totems for "something to do," he soon discovered a big untapped market in cottagers. Now, even with the help of the saw, he has an awesome backlog of orders.

"Business has been much greater than I can handle," he observes. "I'm planning to expand by employing reservation help and buy more of the White Man's tools to make more of the Red Man's totems to sell back to the White Man."

The totem characters are designed on traditional Ojibway lines as practiced by his forebears for many centuries. When the to-



tems are completely carved, they are painted in intricate color combinations that make attractive symbols at cottage entrances and on barbecue sites.

tion in Rochester, N. Y., is Aug. 9-14.

Traffic flow is through the exhibit area to the meeting room, Micha reported. A 45-minute "Exhibitors' Period" is scheduled for Monday morning and half-hour breaks are scheduled each half-day on other days of the convention.

Field demonstrations will be Wednesday morning, Aug. 12, from 9 a.m. until 12 noon.

Dow Dicamba Available

Marketing is under way on Dow Dicamba Herbicide, a broad spectrum weedkiller. Dow Chemical Company is merchandising the product through a joint marketing arrangement with Velsicol Chemical Company, which will continue to market Dicamba products under the Banvel trademark.



TURF INSECTS

A MARCH FLY

(Dilophus orbatus)

CALIFORNIA: Larval infestations more numerous than usual in lawns and soil at Manteca, San Joaquin County.

INSECTS OF ORNAMENTALS

BAGWORM

(Thyridopteryx ephemeraeformis)

ALABAMA: Examination of eggs on some juniper indicates high overwintering survival in Lee and Chambers counties.

GELECHIID MOTHS

(Eucordylea huntella)

CALIFORNIA: General infestation in Kruse Rhododendron Reserve near Fort Ross, Mendocino County. Larvae causing 50-75% bud kill.

CUBAN-LAUREL THRIPS

(Gynaikothrips ficorum) CALIFORNIA: Medium on Ficus nitida at Monrovia, Los Angeles County. WALNUT SCALE (Aspidiotus juglansregiae)

CALIFORNIA: Medium on *Prunus cerasifera* trees in San Bernardino, San Bernardino County.

WHITE PEACH SCALE

(Pseudaulacaspis pentagona)

OREGON: Small infestations found on Akebono cherry at several residences in Portland, Multnomah County. VIRGINIA: Severe on peach and lilac in Arlington County.

STRAWBERRY ROOT WEEVIL

(Brachyhinus ovatus)

OREGON: Damage on arborvitae noted in field nursery at Portland, Multnomah County. About 1% of twigs girdled. Similar girdling also noted at Salem, Marion County.

TREE INSECTS

A CYNIPID WASP

(Callirhytis perdens)

CALIFORNIA: Medium in live oak trees in Solvang, Santa Barbara County.

A WEEVIL

(Cylindrocopturus eatoni)

CALIFORNIA: Generally infested ponderosa pine 20acre stand in Quality Mills area of Tuolumne County. Infestation increasing.

Ansul Company Announces Three Herbicide Products

A new general post-emergent weed control agent and two improved selective post-emergent weed control products have been introduced by the Ansul Company, Marinette, Wis.

The products are: "Broadside," a combination of monosodium acid methanearsonate (MSMA) and sodium cacodylate; Ansar 529 H.C., a MSMA liquid plus surfactant; and Ansar 170 H.C.

Broadside is designed to provide quick knock-down of above-ground vegetation and at the same time act systemically on deep-rooted perennial weeds and grasses. It is recommended for use in non-crop areas such as rights-of-way, fence rows, along highways, utility lines, pipelines, drainage ditches, and around buildings and storage areas.

Dr. Charles Burleson, manager of agrichemical development, said Ansul became interested in the herbicide when it was observed that the combination of MSMA and cacodylic acid produced a synergistic effect on certain plant species.

Ansar 529 H.C. has been registered



General Electric has announced the first commercially available totally electric, compact tractor — the "Elec-Trak." Three models are available, E12, E15 and E20. GE says that although these models compare in price with 10, 12 and 14 horse-power gasoline-powered units, the Elec-Trak models offer higher performance in most respects because of the high applied torques available from the DC drive and attachments motors. A 36-volt outdoor power outlet is designed into the tractor body to operate a GE line of 36-volt power tools, such as earth augers, hedge shears, drills, lawn edgers, grass trimmers, and chain saws. For 110-volt tools, a 110-volt ac inverter will be available as optional equipment. For more details, circle (713) on reply card.

for both cotton and non-crop applications. The product is a highly concentrated formulation of the company's Ansar 529. The new product provides one-third more coverage per gallon. For non-crop application, it is recommended for grassy weed control on drainage ditch banks, rights-of-way, fence rows, and general storage areas.

Ansar 170 H.C. is a MSMA liquid without surfactant added. For more details, circle (711) on the reply card.





Establish Turf Faster, in One Step!

Now you can establish better turf fast in any landscape project . . . including everything from building or residential to golf course, highway or park . . . in far less time! In one operation, Bowie HYDRO-MULCHER uniformly mixes, pumps and sprays slurries of wood cellulose mulch, seeds or sprigs and fertilizer . . . at the fastest possible rate with just two men . . . and does it better,

faster and less expensively than any other method. Models available from 350 gal. to 2500 gal. sizes. Mulches form a germination chamber around young seeds or plants preventing soil from drying out at the surface, and you get much faster germination. Write today for complete information and ask for booklet "Facts About Hydro-Mulching"!



Member Associated Landscape Contractors of America, Inc.





Jomac Products, Inc., Warrington, Pa., offers a free catalog kit containing literature for its terrycloth gloves, PVC-coated gloves and PVC safety clothing. A 10-page terrycloth production glove catalog also features mitts, pads, sleeves, hand guards, aprons and spats. A second catalog, an eight-page PVCcoated glove catalog, carries the Jomac line of liquid-proof and chemical-resistant gloves used in a wide variety of industries. The third catalog, 16 pages on PVC protective clothing, ranging from linemen to workers in petroleum, chemical, food, steel, airport, construction, lumber, paper and railroad industries, among many others. Recommended usage and suggested applications for the individual products are spelled out in all three catalogs. For more details, circle (701) on the reply card.



O & R Engines, Inc., Los Angeles, Calif., has introduced a one-horsepower, air-cooled, compound reduction engine with the exceptionally low shaft speed of 900 rpm. The new engine, Type 196, features a gear reduction ratio of 6.921 to one. The gear reduction is made of die cast aluminum alloy with oil-impregnated, sintered-steel gears and roller-bearing-mounted shaft. It has the standard steel centrifugal clutch. The weight is about five pounds, depending on type of gas tank and engine accessories. As with other O & R engines, the Type 196 has as standard equipment, full roller bearings at four points of the crankshaft, multiattitude diaphragm carburetor, drop-forged hardened steel con rod, chrome-faced steel rings pre-lapped to eliminate break-in and focus fuel injection. Uses have ranged from mini-bikes to earth augers and winches. For more details, circle (702) on the reply card.



The Naval Jelly Company, Kansas City, Mo., announces a super naval jelly, with p-Navaxanthene, for unusually difficult rust removal problems. The additional strength comes from the development of a better gelling agent, which allows maintenance of plasticity with spreadability over a vastly wider pH range. The Super Naval Jelly is said to be nearly double in strength to the regular product. Brush it on, wash it off. It clings to verticals and overheads, removes rust from iron and steel. For more details, circle (703) on the reply card.



Allis-Chalmers, Milwaukee, Wis., announces that among the range of implements and attachments for its Allis-Chalmers 12-hp Model B-212 lawn and garden tractor is this three gal./min. sprayer. The tractor has a Vari-Shift transmission with seven forward speeds in any of three gear selections, and reverse from 1.7 to 3.4 mph. Vibration is held to a minimum with "Synchro-Balanced" crankshaft. The power unit is a Briggs-Stratton engine. The tractor has front, center and rear PTO points. For more details, circle (707) on the reply card.



Cushman Motors, Lincoln, Neb., announces a four-wheel turf-truckster. It carries a passenger and a half-ton cargo, also. The four-wheel models include: the pickup with a stationary 53x57-inch box; the pickup with a 53x57-inch manual-dump box; the flat bed, with a cargo area of 51x60 inches; and the chassis model, for use with the Tyne-Mite hydraulic dump bed that will meter out sand, gravel and top dressing, or for mounting the purchaser's own body or equipment. All four-wheel Turf-Trucksters are equipped with 18-hp gasoline engines and 42-amp alternators. Automotive steering and four-wheel hydraulic brakes are featured. Turf protection is provided by 8.50x8, four-ply Terra Tires with traction treads on the rear. To make the Turf-Truckster serviceable in any weather, a wind-shield, fiberglass cab with folding doors, and rear view mirrors are offered as options. For more details, circle (708) on the reply card.



Bulletin 177



Spraying Systems Company, Bellwood, Ill., announces a new series of hollow cone spray disctype TeeJet nozzles for spraying concentrates at low capacities and at higher pressures up to 600 psi. Nozzles are of tungsten carbide orifice discs and cores. Choice of capacities at 200 psi range from .21 to .45 gpm. At this same pressure spray angles will range from 72 to 100 degrees. Orifice diameters of the discs range from .041 to .094 inches. For more details, circle (704) on the reply card. Aeroquip Corporation, Jackson, Mich., has published a booklet, "How to Identify, Select, and Assemble Aeroquip Aircraft Hose and Fittings." The booklet explains in simple terms the basic identifications and procedures involved in the use of hose assemblies. It's a handy guide for persons working with aircraft. The 40-page booklet has four sections. The first discusses basic hose types, including construction and identification; the second provides similar information about hose fittings; the third covers fundamentals of hose assembly procedures; and the final section deals with maintenance. For more details, circle (705) on the reply card. Chemix Corporation, Troy, Mich., offers a volumetric mixer that's suited for virtually all industrial applications. The Chemix Volumetric Mixer mixes dry chemicals with liquid giving a predetermined percentage of solution automatically and accurately. A four-page brochure listing capacities, construction, installation requirements, dimensions, and operating instructions is available. The mixer is $32\frac{1}{2}x55$ inches and weighs 150 lbs. Hopper capacity is 9 cu. ft. of dry material; solution chamber, 35 gals. Dry material can be mixed at rates up to 28,380 cu. in. per hour; mixed solution or slurry, up to 180 gals. per hour. A $1\frac{1}{2}$ " drain outlet provides for rapid discharge of mixed solution. Installation requires one half-inch IPS water inlet line with pressure range from 25 to 125 psi and one electric outlet conforming to voltage and cycle requirements. For more details, circle (706) on the reply card.



TriTan Corporation, Houston, Tex., announces the new MINI HYDRO-LASER, a portable, self-contained spraying unit for use in ground-level or truck-mounted spraying of pesticides, fertilizers, fungicides, or detergents. Also can be used for spraying rust preventative, water/sand blasting to remove loose paint. The MINI HYDRO-LASER produces up to 1,000 psi with a water usage of only 8 gpm. It requires no compressed air supply. A 30-gal. heavy duty all-welded reservoir tank serves as base for the entire unit. The unit has fixed and swivel rubber-tired wheels and pull bar for inplant operation. It can be obtained for stationary mounting. For more details, circle (709) on the reply card.



Friend Manufacturing Corp., Gasport, N.Y., offers the Hy-Ride Junior for brush and weed control and ditch sterilization. Front-mounted on truck frame, available for cab-overengine style or standard chassis with operator's controls in cab. The Junior (a larger, Senior, model is available) is designed specifically for counties, townships, custom applicators, utility companies, etc. Features include: 90-degree swing; extended length to 15 feet; mounted base that allows mast to move out eight inches for truck clearance; effective spray pattern up to 25 feet; clearance for mail boxes, guard rails and obstructions up to six feet. For more details, circle (710) on the reply card.



AISL

INTRODUCING



COMMERCIAL TURF operations still dominate the big international show staged annually by the Golf Course Superintendents Association of America.

This year at Houston (Feb. 8-13) a record attendance was on hand for the most extensive educational program and equipment exhibit ever put together. Total registration was 3,620 (See Table 1). A total of 125 companies exhibited, filling 341 booths.

Norman W. Kramer, superintendent at Point O'Woods Country Club, Benton Harbor, Mich., was elected president. He had been a director since election to the board in 1966. He succeeds outgoing president John Spodnik, Westfield Country Club, LeRoy, Ohio.

Elected along with Kramer were: Richard C. Blake, Mt. Pleasant Country Club, Boylston, Mass., vicepresident; Palmer Maples, Jr., Charlotte Country Club, Charlotte, N. C., director; Garold Murphy, Somerset Country Club, St. Paul, Minn., director; and Clifford A. Wagoner, Del Rio Country Club, Modesto, Calif., director.

This group along with the complete board will be responsible for the 1971 conference and show. This coming event will be held at the Denver Convention Center, Denver, Colo., February 7-12.

Management Motivation

The program featured specialists from throughout the nation. Wallace A. Micheltree, Rutgers, New Brunswick, N. J., discussed motivation as a must phase of management. He said that a manager of a golf course which employs people should have the attitude that people basically want to work.

Micheltree believes that managers need to look on employees as a production unit, and not as a production cost. He feels employees have the same goals as management. He believes that as the manager relinquishes part of his authority over employees, that the manager's influence increases over said employees. Allowing employees to help establish purposes, goals, and targets aids in acquiring maximum production.

"If a manager holds the concept that people basically want to work,"

Name your interest in commercial turf equipment, and it was easy to spot at the GCSAA exposition, an integral part of the annual turfgrass conference. The 41st session was at Houston's Convention and Exhibit Center, which offers more than 300,000 square feet of usable space.



Ryan sod cutter and roller get close check from these convention guests. At right picture, Cecil F. Kerr, Rhodia, Inc., Chipman Div., New Brunswick, N.J., left, visits with Russell

Micheltree said, "his attitude in giving orders, his facial expressions, even the inflection of his voice are different from the manager who believes otherwise." By contrast, he went on, "the manager who subscribes to the philosophy that people do not want to work admits that there is nothing he can do toward managing his employees.

"The only control a person has over people who work for him is the control that they will give him," Micheltree stressed. He said further that, "control is directly proportional to the opinion that employees have of a person as a manager. If they hold him in high esteem and have an extremely good opinion of him, they give him a considerable amount of control over them. If they do not, then they will give him little or no control. If the employees have a good opinion of their supervisor they will in turn want him to have a good opinion of them."

Let Buyer Be Aware

Another popular speaker was Robert T. Miller of DuPont, Wilmington, Del. He pointed out that the image of the so-called "peddler" has changed radically in recent years.



Bandy, New York advertising manager for Weeds Trees and Turf. John Kielp, Chicago advertising manager, and Arthur Edwards, editorial director, also represented this magazine.

Miller said that no longer is the term "Let the Buyer Beware" appropos. Today, he feels the slogan should be, "Let the Buyer Be Aware." The con-man today is the exception. Reliable companies generally sell the chemicals, fertilizers, and equipment to manage the cultural practices necessary on a golf course. Miller pointed out that the buyer today has the protection of the Better Business Bureaus, the federal government's Pesticides Regulation Division and attendant regulations such as label requirements, plus competition. Many states also license sale of certain products, par-

