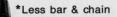
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Special for This Issue

Spray	ymen Sue	8
	Northwest pesticide applicators and their employees are filing a review petition on the government's most recent DDT restriction of use on ornamentals.	
Laser	Attack on Aquatic Weeds 1	0
	An operational model of a carbon dioxide laser is being built and will be tested this spring.	
Land	scaping with a Mercedes-Benz	2
	Joseph Zenovic, Jr., believes the Mercedes-Benz can outperform the conventional tractors being used.	
It's S	till Alive!	4
	A 60-ton Valley Oak transplanted two years ago is still alive and doing fine, reports Lou Speer.	
Natio	onal Sod Industry Survey	7
	Weeds Trees and Turf's second survey indicates that producers are growing in numbers and that their farms are becoming larger.	
Muni	icipal Arborists: Street Lighting and Trees Can Go Together	22
	Report of the sixth annual meeting of the Society of Municipal Arborists.	

Regular Features

Editorial: Too Much Country Out of the People	
Meeting Dates	
Industry People on the Move	
News Section	
New Products	
Classifieds	
Index to Advertisers	
Trimmings	

The Cover

William Owen, president and owner of General Spray Service, operating in metropolitan Portland, Ore., describes his operation to touring members of the Pacific Northwest Pesticide Applicators Association. Owen is a charter member and past president. His grandfather, William, started the business in 1924 with a 50-gal barrel with hand pump mounted on a Model T Ford. While his grandfather handled the hose, his father, Kenneth C., operated the pump. More about his current operation appears with the meeting report beginning on page 8.



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Too Much Country Out of the People

WITH A KINDERGARTENER, a third-grader and a fifth-grader back in school, we can expect to re-arrange the potted houseplants most any day now to make room for a milk carton or three of bean plants.

The youngsters are fascinated by the phenomenon that occurs when they place what appears to be a dry "dead" seed in the ground, water it, then in a few days see a living plant spring forth. Teachers wisely use this kind of action-science instruction over and over.

Yet something is amiss; otherwise we would not have concern for the conditions of our environment. Either the lesson stops too soon or else the whole story about the importance of a living plant isn't being told.

The source of environmental pollution may stem in large measure from second rate emphasis of the living world in the urban classroom wedged into cites of steel, glass and concrete.

Pumpkin plants, six inches tall and starving, came to our house last spring. We continued the lesson by transplanting them in the garden. Our third-grader watched them grow all summer. This halloween, she had eight big pumpkins and the option of pie or jack-o-lanterns.

While most of the pupils didn't raise the pumpkin, the cucumber, the bean, the tomato, and so on to harvest, they most likely got the idea that some plants, and not supermarkets, produce our food. Our youngster got more of the story, but still not all of it.

The story that isn't getting told is that all plants make a contribution to human life more precious than that of species cultivated for food—namely, the utilization of carbon dioxide and the production of oxygen.

We cannot live without plants. Does not this fact warrant teaching plant science as fundamentally and as intensive as any subject in school?

Most urban youngsters grow up far from the realm of cultivating plants for food production. But shouldn't they be taught more appreciation for the plants they do come in contact with?

Why don't the youngsters ever bring home a

carton of grass? Or a tree seedling?

Environmental sermonizing has called attention to some fascinating stories that can be told about both.

"It is estimated that one average-size home lawn with healthy, vigorous turf can replenish the air with enough oxygen for eight persons," says turf specialist A. J. Powell from the University of Maryland.

Imagine the reaction of youngsters upon being told that some of the oxygen they breathe is being made right in their own front yard!

They all know by kindergarten that on a hot day the coolest place is in the shade of a big tree and that the sidewalk can give them a hotfoot while the grass is cool. But have they been told the whole story of why living plants can lower surface temperatures as much as 20 degrees?

As the youngsters progress through the grades, they could be told how trees and grass, in addition to producing oxygen, muffle noise, filter the air of dust, purify the air, even reduce the glare of direct and reflected light. And they could be told that plants, like humans, need good water and air to stay healthy.

Telling is not enough. The real learning is in caring for a living thing.

From the youngster who has planted grass and tree, cared for them, watched them grow, and heard the whole story . . . could we expect him to be as messy an environmental housekeeper as we are?

Putting more trees and grass in our parks, around our homes and businesses, along our highways, and in our downtown business sections is an encouraging trend. Perhaps the most critical need is to put more trees and grass into our classrooms.

It is becoming increasingly apparent that our industrialized, urbanized society has committed two grievous errors, summed up by paraphrasing a thought that deserves better company than the product it keeps:

We have taken too many people out of the country and too much country out of the people.

Gene Ingalste



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Good turf is just as important in keeping your score low as good golf technique. This year golf course superintendents will again have a golden opportunity to catch up on the latest golf course management developments. It's all happening at the 42nd International Turfgrass Conference and Show in Denver, Colorado—February 7-12, 1971.

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Northwest Pesticide Group Testing Federal DDT Noose

SPRAYMEN SUE

MEMBERS OF THE Pacific Northwest Pesticide Applicators Association have made theirs an action group. At their recent Spray-O-Rama '70 they decided to challenge the federal government on its latest DDT-use restriction.

Formally the group is filing a petition for review through a label registrant (in this case, Crop King) which is a petition against deletion from federal registeration. The action followed the new federal order deleting all ornamental uses of DDT and most other chlorinated hydrocarbons. In effect, the group is filing suit against the federal government.

Their action as a group has made this the personal challenge of every custom pesticide member business in the states of Washington and Oregon. As is true in every case where a petition for review is filed, each petition must be accompanied with \$2,500

General Spray Service operations today include tree pruning, fertilizing and all types of pesticide spraying. Most work is pesticide application, much of it for lawns and ornamentals. Trucks, either one-ton or 1½-ton, have 600-gal. tanks. Herbicides are in a separate trailer-mounted tank.

earnest money to cover the hearing costs. (This money is retrievable only if the petition is granted). As the money is utilized by hearing expenditures, additional funds must be tendered. The approximately 100member custom pesticide business in the Pacific northwest group agreed to pay \$25 each at this time and subsequent funds as needed. Each employee of the group is personally paying \$2.50. The individual feeling of the group appeared to be that the emotionally packed pesticide question must be resolved and that it is the problem of everyone within the industry.

The Spray-O-Rama, held alternately at Seattle and Portland, was this year hosted by the Oregon group. Featured was Keith Davey, president of Davey Tree Surgery, Ltd. San Francisco, Calif. Davey stressed the need for pesticide organ-



Charles Seibold, left, Major Spray Service, Portland, Association vice-president, talks with newly elected president George Harrison of Tacoma, Wash.

ization. He explained the interest of the International Shade Tree Conference of which he was formerly president, in getting the Pacific Northwest Pesticide Applicators Association as a member or separate division of the ISTC. Davey stated that the ISTC is worldwide in scope and has great potential for more organization in Europe. He pointed out that regional meetings in addition to the regular annual meeting are valuable to members. Davey said that many of the present P.N.P.A. members are already members of the shade tree group.

Davey further stated that a number of very viable organizations work within the ISTC. He named the public utilities and the municipal utilities groups, the latter of which is now in process of organization. Others named were the Consulting Arborists and the National Arborists.

William Owen's wife, his brother-in-law and sister, Mr. and Mrs. O. M. Sams, and his mother, Mrs. Kenneth Owen, work with him. The company averages about eight employees year-around.





Sprayman Ben Holst, Salem, Ore., left, visits with Lew Sefton, center, outgoing president, and Keith Davey, president of Davey Tree Surgery, Ltd., San Francisco.



From the left, Lawrence Potter, McGrath Spray Service of Portland; Bob Skanes, Carothers Spray Service, Tacoma, Wash.; and Darrell L. Behounek, also of Carothers.

Davey believes that an alliance could strengthen both groups.

Arthur Edwards, editorial director of WEEDS TREES AND TURF magazine, discussed current pesticide restrictive legislation and the need for a national organization and/or effort. The P.N.P.A. members continue to express interest in expanding their group and in helping establish other state groups. A guest at the Spray-O-Rama '70 was Bob Huntwork, owner of J Spray Corporation of Orinda, Calif. He and Mrs. Huntwork attended both the first day tour and the following two days of the formal program. Huntwork hopes to get an organization established similar in nature to the northwest association. The P.N.P.A. board formally voted to extend whatever help is possible.

Frank B. Stewart, president of Miller Products at Portland and a member of the board of directors of the National Agricultural Chemicals Association, presented a formulator's view of today's pesticide picture.

Stewart said that "Despite the political and regulatory activity in every state of the nation and by the federal government, I am optimistic for the future of pesticides in our country." He pointed out that unnecessary loss of registration and outright bans of certain materials makes research and development plus registration of new chemicals such a gamble and a burden in costs that it is forcing management of companies to withdraw from the field of chemical development.

He further said that we as formulators and applicators must not be guilty of half-truths to serve any selfish interests or to further our own positions or business activities. Chemical tools, Stewart said, must be saved for all segments of society. He called for true scientific research and reason so that research, development, and use programs may be properly continued, skillfully modified, and vigorously pursued.

Officers for the coming year are: George Harrison, president; Charles Seibold, vice-president; and Howard Lufkin, secretary-treasurer. Directors are John Behyt, Stan Raplee, Don Mock, Steve Fisher, Jim Cole, and Ted Glass. Ken Thorpe, Don Rasmussen, Jack Daniels are alternates.

Registration at the '70 annual session was 143, a new record.

Committee appointments as a result of the first board meeting are: Annual Conference — John Beheyt; Membership and Expansion — Bill Owen and Stan Raplee; Bylaws Review — Lew Sefton and Don Mock; Audit and Finance — Chuck Seibold, Jim Overton and Steve Fisher; Federal Suite — Lew Vaughn and Bud Johnson.

Don Rasmussen, president and owner of Rasmussen Spray Service, right, and Phil Jackson explain system that will fill a 200-gal. tank in 90 seconds. Four hoses, serviced by a city water system supplying 70 psi water pressure are mounted overhead. Rasmussen spray units are all self-contained and are lifted off pick-up trucks with overhead crane in the service building.



A retired fire truck was remodeled and converted for pesticide application by Lew Sefton. His operation was the final tour stop. Dinner was served in his new service building.



LASER ATTACK On Aquatic Weeds

AN OPERATIONAL MODEL of a laser beam is being built by the U. S. Army Corps of Engineers to continue testing its effectiveness for controlling aquatic weeds.

"We hope to begin field testing about the first of March or April," said Dr. Edward O. Gangstadt, who's in charge of the Corps' aquatic plant control research activities.

After two years' laboratory experimentation, the successful application of the laser beam for weed control looks "quite feasible by our estimates," said Gangstadt. How much further the project goes will be determined by the field test results gained in fiscal year 1971, he added.

The laser beam application was conceived by Dr. Gangstadt's predecessor, Dr. Ralph A. Scott, Jr., now with the Department of Defense. The process has been disclosed to the U. S. Patent Office, and

Setting up an experiment to use the Army Missile Command's continuous wave carbon dioxide laser on a water hyacinth are physicist John Ehrlich, left, Physical Sciences Laboratory Research and Engineering Directorate, Army Missile Command, and Dr. Richard Couch, biologist from nearby Athens College, Athens, Ala. Lasers are being explored as a possible tool for exterminating aquatic weeds. The work at Redstone Arsenal is being performed for the Army Corps of Engineers. Dr. Scott has signed a license granting exclusive use to the government, on a royalty-free basis.

Two types of lasers are being studied. One would be used for surface plants and the other for submersed and bottom-rooted plants. It is the surface-application laser that has reached the operational model stage.

A copper vapor laser for underwater applications still is in the laboratory stage of development but "looks rather promising," reported

