

Pit Stop For Professionals

Texas Industrial Weed Control Conference Report

TRAINING in equipment use and chemical application procedures continues to be the number one need among commercial applicators. Ask any applicator or spray man, from the most sophisticated to the novice, to rank the items most desired by him in the performance of his job and the overwhelming majority will list training at the top.

Why? No one answer will suffice. The best theory is a combination of factors. Changing laws relating to application of environmental protection chemicals, new applicators coming on the scene, new chemicals on the market, growing awareness of a growing market, more up-to-date application equipment — these and others contribute as reasons applicators give. But in a larger sense, this thirst for training is indicative of an industry poised on the springboard of a newly emerged, highly technical science that demands considerably more qualification and knowledge of its people than what we've had up to now.

Commercial application of environmental protection chemicals is a prescription science where knowledge and experience command attention and where training is a prerequisite to success. Few custom applicators today would attempt to prescribe materials for vegetation control without knowing first the area to be treated and second the effect or end result of each chemical used.

Problem identification and analysis and specific treatment have been emphasized at weed conferences, applicator meetings, by university extension personnel and by chemical and equipment manufacturers. The thrust of all has been more toward specificity with a good deal of actual case study and field demonstrations.

The 8th annual Industrial Weed

Control Conference held at Texas A&M University in mid-October was no exception. In two days, delegates were exposed to a barrage of topics, papers, demonstrations and panels the likes of which would educate and train a neophyte to a professional, if he could assimilate all the information.

Sponsored by the Texas Agricultural Experiment Station and the Texas Transportation Institute, this conference represents probably the only one of its kind devoted entirely to industrial weed control. This year's meeting covered the Federal Environmental Pesticide Control Act (FEPCA), aquatic weed control in Florida, OSHA, problem analysis, vegetation control on rights-of-ways, parks and lawns, brush, trees and vines, and total vegetation control.

Conference chairman Dr. Wayne G. McCully, department of range science at Texas A&M, opened the session saying that conferences of this type give us a chance to make headway in weed and brush control.

One of the early speakers was James Pumola of Region VI, Environmental Protection Agency. He reviewed the history of pesticide legislation and outlined the need for the present FEPCA. "This is the first law in which applicators must be licensed in order to apply chemicals," he said.

Pumola carefully reviewed several sections of FEPCA as they apply to applicators. "Pesticides must be classified according to restricted or general use," he said. Scheduling on licensing of applicators for the state of Texas will be established after the regulations are published on December 21. He concluded by saying that it is the intention of EPA to turn over the administration of FEPCA to the states.

Looking at a model program for

Texas, Harry Whitworth of the Texas Agricultural Chemical Association told delegates that the primary program is the certification of commercial and private applicators. He said that the tests to be developed for certification "must be of sufficiency to demonstrate the ability of the person to properly apply the product for which he will be licensed."

Whitworth mentioned that currently the authority of FEPCA is at the Federal level. "Enforcement is placed at the state level," he said. "It is incumbent that the state pass an act in the next legislature." He said that help is needed in implementing this bill because environmentalists will bring much pressure on legislators.

Dr. Alva P. Burkhalter, coordinator, aquatic plant research and control, Florida Department of Natural Resources, enlightened those present with Florida's program for aquatic vegetation control. "The department has these functions:" Burkhalter said, "1. control of offenders, 2. training programs for certification of applicators, 3. regulation of plant movement, 4. research — in house and with Federal and state agencies. . . ."

He said that the state's major aquatic problems have been weed species which were introduced into Florida's waters. Water hyacinth, hydrilla, Eurasian watermilfoil, Brazilian elodea and alligatorweed were brought into the state.

Burkhalter pointed out that his state had taken decisive measures to control these aquatic weeds. Use of herbicides, mechanical weed harvesters, biological controls (insects), and herbaceous fish have been used to keep weed growth under control. He explained that a combination of biological and chemical methods appears to be better than either alone. This means that when several factors attack weed growth, the resulting damage is greater than one factor by itself. Thus, where chemicals are used to treat water hyacinth, the addition of the flea beetle enhances the weed killing action.

The opening session dealing with regulatory and legislative action pertaining to the user closed with a discussion of the Occupational Safety and Health Act by Jim Powell, assistant director, OSHA, San Antonio. OSHA deals strictly with an employee/employer relationship. It affects any employer who employs and works in interstate commerce, he said.

Powell said that in simple terms the act requires the employer to

provide a safe environment for the employee. There is no penalty for the employee, he said, only the employer. It allows the employee to make a complaint directly to OSHA without going to the employer first. Noticeably missing from the discussion was specific points as to what OSHA looks for in the no notice inspections. Powell tended to hang his speech entirely on explaining what the law was rather than telling applicators what they should do. More than one applicator commented that many of the important points that might affect his business were glossed over. It might be safe to conclude that those applicators present were given no new facts about how OSHA affects the industrial herbicide applicator.

New products were next on the program. Delegates showed much interest in Spike, an experimental herbicide from Elanco Products Company. When registration is approved by EPA, this product will be available in four and fifty pound packages. It is non-corrosive and has an LD₅₀ rating of about 500 mg/kg. The product can be applied pre- or postemergence and it is active against herbaceous and woody plant species. Delegates were able to see demonstration plots of this material at the Texas A&M research annex.

Vic Jouffrey, FMC Corporation, told delegates about the John Bean highway boom. It's a boom powered by a hydraulic cylinder which can be adjusted from inside the truck. Jouffrey said that it is made with two movable sections and can be used in conjunction with any sprayer.

Another interesting approach to weed control was the Weed Zapper, a kind of giant micro-wave unit that super cooks weeds from the inside out. Larry Benson of Oceanography International Corporation, College Station, Texas described the process as one method of weed control that leaves no residual. "When the Zapper passes over, weed tissue is destroyed," he said. There has also been research conducted with the Zapper in nematode, fungus and insect control.

Field demonstration and displays of equipment and chemicals were an integral part of the conference. One product which caught the attention of delegates was Lo Drift, a spray additive which reduces the drift potential. Jack Thompson of Amchem said that it could be used in nearly every application of herbicides to reduce drift and keep the herbicide

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Field demonstrations of sprayers such as this John Bean unit caught the eye of delegates. New equipment is an essential part of any training program. Applicators respond positively to even slight equipment modifications.



During the split session portion of the program, three speakers discussed total vegetation control. Bevan Cates, Van-Waters and Rogers, Dallas, Tex. reported on abatement control, Dr. Allen F. Wiese discussed sterilization, and Robert P. Carter, dept. of soil and crop sciences, Texas A&M spoke on growth regulators.



Lo Drift, a spray additive used to reduce drift potential was demonstrated here. Amchem's ack Thompson showed applicators how to mix and use the material.

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on target.

Other displays from manufacturers include sprayers from John Bean and Red Ewald. Chemical suppliers represented were Du Pont, the Agricultural Chemical Division of FMC Corporation and Amchem Products, Inc.

The second day of the conference was designed as a workshop for delegates. Keynote speaker for the session was Turney Hernandez, industrial herbicides product manager, E. I. Du Pont de Nemours & Co., Inc.

Hernandez spoke on "Vegetation Problem Analysis." "As custom applicators you need to decide what your customers needs are," he said. "Does he need bareground, short term control (abatement), selective weeding, chemical trimming, or brush control? Perhaps it is a combination of these types of vegetation control."

He pointed out that there are many different types of herbicides and each is designed to give a different response. The key is to know how each product performs so that selection will give the desired results, Hernandez said.

Hernandez then pointed out the

needs of various markets. "For railroads, there's a need to control vegetation in yards, around tressels, in between tracks, and along rights-of-ways," he said. "It has been determined that the efficiency in making track inspections has been increased between 50 and 75 percent when tracks are clear of vegetation." In the case of track components, poor weed control contributes to a general downgrading of the railroad in short order.

The product manager said that plant sites of utilities and rights-of-ways were excellent markets for herbicide usage. Other markets include highways, drainage and irrigation ditches, aquatic weeds, chemical trimming around valuable plantings and ranges.

Using slides to illustrate his points, Hernandez also touched on spray volumes, timing of application and equipment needed in getting the job done. "Keeping the material on the target is an absolute necessity," he said.

He listed these factors as those which affect performance of a herbicide: 1. types of plants; 2. soil type; 3. rainfall; 4. the applicator; 5. temperature; and 6. surfactant. He said that some of the reasons for poor

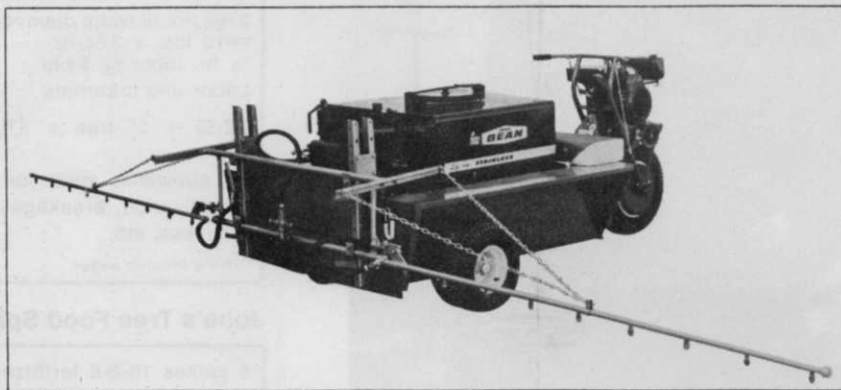
control of weeds are rates being too low, poor agitation, poor selection of nozzles, degraded atmospheric conditions, too little or too much rain, and improper calibration of equipment.

How big is the custom application market? Hernandez said that 80 percent of the non crop weed control chemicals are applied by custom applicators. He concluded by saying that the four principles to successful custom weed control are: 1. measure right; 2. price right; 3. apply right; and 4. follow up right.

Delegates then formed three groups to hear panels discuss selective vegetation control, aquatic control and total vegetation control.

Aquatic Vegetation Control: This panel, chaired by John Gallagher, Amchem Products, Inc., reviewed worked being accomplished in Florida and Texas in the control of aquatic weeds. L. V. Guerra, Texas Parks & Wildlife Department, discussed the control of weeds at Cato Lake. Bill Hogan, Ortho-Chevron Chemical Co., said that there are four approaches to weed control in flowing water. They are: mechanical, biological, chemical and natural. He

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said that chemical control is the main line of defense today.

Hogan said that where water hyacinths are present, applicators usually use 2, 4-D. "But you can use Diquat around areas of valuable plantings," he said. "Diquat plus copper complex or ion at the rate of two gallons per surface acre (placed in the pater) will also control hydrilla."

Andy Price, Asgrow, Plant City, Fla. said that stream banks can be kept free of weeds by 1. determining the area to be treated, identifying the weed species and solving the problem with the available equipment and chemicals. He pointed out that one reason for the problem in the beginning is a lack of care.

Selective Vegetation Control: Rights-of-ways, parks and lawns, and brush trees and vines were topics discussed in this panel. O. M. Pourciau, Louisiana Department of Highways, outlined where weed control is needed and how to achieve results on rights-of-ways. Dean Bottlinger, Chemical and Turf Specialties, Inc., Dallas, reported on his work in controlling vegetation in parks and lawns. Michael W. King, Louisiana Power & Light discussed

vegetation control of brush and trees.

Total Vegetation Control: Dr. Allen F. Wiese, Bushland, Texas presided over this panel and also spoke on bareground weed control. He said that there are two types of soil sterilants, the fumigants with no soil residual and the soil active herbicides which provide long soil residual. The latter group generally upset the metabolism of the plant, leach to about six feet, and are mostly absorbed by roots. Wiese pointed out that one of the problems associated with soil active herbicides is the control of desirable vegetation and herbicide "shift."

Robert P. Carter, department of soil and crop sciences, Texas A&M showed delegates how growth regulators can be used. He discussed how to use Maintain CF 125 a product of U. S. Borax and Sustar, a new experimental growth regulator. For regulation of growth of turfgrass on lawns, he said it was important to get uniform coverage. He suggested that the applicator double the amount of water needed and cross spray (two directions) to achieve maximum coverage.

Delegates to this year's meeting were asked to state their desires as to meeting location, program and the


possibility of establishing an Industrial Vegetation Management Association. It was decided that next year's meeting will again be held on the Texas A&M campus. Delegates felt that the program format should include additional training, Federal and state laws, roadside maintenance, and a greater amount of demonstrations of equipment and chemicals. There was keen interest in starting an association which would focus on the needs of industrial weed control applicators in Texas. □

Training Schools For Mauget Products Announced


About 20 meetings to teach arborists, golf and park superintendents, and others the uses and techniques of Mauget Tree Injection products will be held in 1974, according to an announcement by Del Kennedy, vice president, J. J. Mauget Co., Burbank, Calif.

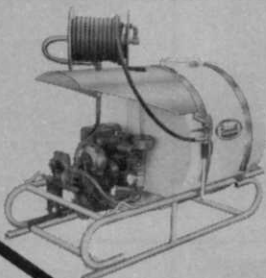
The meetings will be scheduled in metropolitan centers with easy access to airports and interstate highways. Last year about 2000 people attended the Mauget schools, representing every state.

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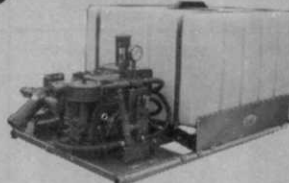


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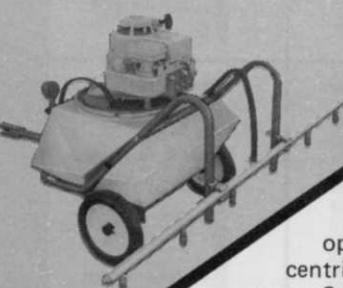
50/100 gal. 2000 Series



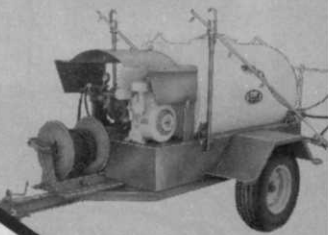
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