Eron foam generator will handle controlled volume of foamy herbicide in 12 mph wind according to the developer, Robert Eron. Unit can be used to spray minute amounts of foam on a single plant, or to deliver large quantities.

Florida Weed Specialist Develops Foam Generator

Robert Eron, pest control operator and weed control specialist, St. Petersburg, Fla., is working on a new method for foamy herbicides.

Eron describes his system as a positive-pressure foam generator. The idea, he says, is to carefully target herbicides on pest type vegetation. Eron's unit is still in the developmental stage. He is now using it in his own business in Florida and has made patent application. Eron reports the foam generator has been used to treat cattails, hyacinths and similar weeds. The foamy herbicide produced by his generator clings to leaves and stems. Especially important to the weed control operator, he said, is the fact that the new unit foams herbicides onto plants so that the chemical clings to leaves and stems rather than running or blowing off. At the same time, the foam produces the desired extended wetting period.

Biggest problem in development of the new system, Eron says, has been in developing a formula for each type control which would foam properly. None is on the market at the present time.

Eron's hope is to further develop the system, complete patent clearance, and then fabricate the unit for sale.

WSSA Meeting

(from page 28)

loram at a cost which compares favorably with the cost of mechanical mowing.

Officers for WSSA are elected by mail balloting prior to the formal meeting. New officers for 1968 are: Dr. Boysie E. Day, chairman of the Department of Horticultural Science, University of California, Riverside, Calif., president; Dr. Glenn C. Klingman, director of plant science research, Eli Lilly and Co., Indianapolis, Ind., secretary; Dr. Fred W. Slife, agronomist, University of Illinois, Urbana, Ill., treasurer and business manager; Dr. Earl G. Rodgers, department of Agronomy, University of Florida, Gainesville, Fla., editor of the Society's technical journal, Weed Science, reelected as editor; and Dr. Loran L. Danielson, ARS, USDA, Beltsville, Md., secretary-elect.

Dr. R. E. Doersch, chairman of the WSSA awards committee presented the award for the outstanding paper at the 8th annual meeting to Dr. R. Prasad, Dr. C. L. Foy, Virginia Polytechnic Institue, Blacksburg, Va., and Dr. A. S. Crafts, University of California, Davis, Calif., for their paper "Effects of Relative Humidity on Absorption and Translocation of Foliarly Applied Dalapon."

Doersch also presented Dr. G. F. Warren, Purdue University, a plaque and an honorary membership in WSSA. Final registration was 744. More than 200 scientific papers were presented, plus 50 in a special Latin American section. Latin American papers were translated simultaneously during the event.

New Spray Adjuvants Now On the Market

Stull Chemical Company has developed 3 spray application adjuvants for weed, brush, and grass control with presently used herbicides.

Bivert AMX, Bivert DPN and Bivert MSMA have been developed to go hand-in-hand with Stull's Bifluid application system for invert emulsion sprays.

Bivert-AMX is a specially formulated spray adjuvant for use with Ammonium Sulfamate (Dupont "Ammage X" Weed and Brush killer). Bivert-DPN for use with Dalapon (Dow "Radapon" or "Dowpon") provides another weed killer usable in the invert system. The third, Bivert MSMA for use with Monosodiun Methanearsonate through invert spraying, makes it more effective on grasses, weeds, and some brush species.

Power sprayers now using these herbicides may be quickly converted to apply water-in-oil emulsions. This requires a simple, inexpensive device called a Stull Bi-Vac Inverter, which is connected to the regular pump suction, and an additional tank

(Continued on page 44)

Calibrate Sprayers

(from page 10)

determine manpower distribution for spraying programs. This formula calculates the number of acres sprayed in one hour. The formula to determine this factor is as follows:

$$\frac{Y \times MPH}{8.25 \text{ (constant)}} = APH$$

With the symbol Y, representing the boom width in feet, we multiply the ground speed (MPH), divided by the constant 8.25. The product is the APH, or acres sprayed in one hour.

As an example, let us say you are using a Model 308 John Bean Duo-Flex Boom which has 13 nozzles spaced at 20 inches and provides a spray swath of 21 ft. 8 inches or 21.67 ft. You have decided on a spray program which requires a ground speed of 4 MPH. This would be your calculations:

$$APH = \frac{21.67 \times 4}{8.25}$$

$$= \frac{86.68}{8.25}$$

$$= 10.5 \text{ acres per hour}$$

Calibrating sprayer equipment is important in your overall operation. Experiment stations and turf advisors should be consulted for their recommendations before a spraying program is started. If their recommendations are followed faithfully, your spraying program will be successful. If not, the best sprayer made cannot do the job for which it was intended.

Another important point to consider is the choice of spraying equipment. Be sure the sprayer has sufficient capacity to carry out your full program. Make sure it has a tank and piping system which are protected against the ravages of modern day chemicals. Be certain it has a good filter or ample capacity; plugged nozzles will upset your rate of application. Be doubly sure it has a pump that can withstand abrasive and corrosive chemicals you will be using. It should have an accurate and reliable pressure gauge and pressure regulator or relief valve. Make sure also that the boom is protected inside against rust and corrosion.

Buy your sprayer from a reliable source, preferably your turf equipment supplier. He has access to factory warranty and service programs which can be very helpful. Take good care of your spraying equipment; keep it in good condition. Periodically check nozzle capacities. Follow closely the recommendations of your turf advisors, and your spraying program will be successful.

Pit Scale Control

(from page 22)

ly free from phytotoxcity. Apparently certain environmental stresses on trees such as excess or deficient soil moisture, or root disease, have an important bearing on the likelihood of foliage injury following the application of a spray chemical. None of the trees, however, showed subsequent symptoms of leaf injury when the treatments were made before bud break. Unfortunately, these California trials indicate that applications made between late April to early June, when trees are in a foliated condition, result in more effective pit scale control than applications made in the late dormant stage. As is the case with many scales, maximum control apparently is contingent on application of the insecticide when the insect is in the vulnerable immature stage.

New Adjuvants

(from page 33)

which may be a 30 or 55 gallon drum.

Development of these application adjuvants when used with the Bi-Vac Inverter have many advantages over straight solutions or conventional emulsion applications. Through the Stull system, the spray mixture becomes a water-in-oil emulsion. The advantages over oil-in-water emulsions include less evaporation, more uniform droplet size, ease of control, and greater leaf penetration. Users also report reductions in run-off, spray drift and application costs.

Trimmings

Plaudits to John Gallagher. Special thanks are due John Gallagher for his time and effort in seeing that technical conference material is made available to the industry. We've attended two major meetings within the last few weeks, the Northeastern Weed Control Conference and the Weed Science Society of America. In both sessions, John, as president of NWCC and public relations committee chairman of WSSA was busy lining up officers and participants for the benefit of the press. Previously, in addition to his duties at Amchem Products, Inc., he, along with his committee members, had spent months in getting technical papers produced for press use. We appreciate this kind of help.

* * *

The When of Preemerge For Crabgrass. We've heard a number of of opinions on the best time to use preemergence treatment for crabgrass control. Because of the difference in climates and the variation in seasons, we believe the practical approach is that advanced by Dr. L. J. King in his book, "Weeds of the World." The chemical according King is best applied just before or just as the crabgrass begins to germinate. This will be the time between the withering of the flowers of Forsythia and the beginning of the flowering of dogwood. These are both easily recognized events for the sprayman.

* * *

Lots of Room For Better Golf Courses. We are amazed at the recent National Golf Foundation report on golf course irrigation. Of 7880 courses surveyed, only 42 percent had irrigated fairways. So, we can expect lots of business for irrigation contractors during the next few years. Another surprising statistic was that Kansas has 116 of 500 sand greens still in use across the country.

* * *

DED Now In Idaho. Dutch elm disease continues its trek westward. Dr. Arthur D. Partridge, forestry professor at the University of Idaho, reports that recent laboratory tests confirm findings of the Boise City forestry department. Citizens are being asked to report symptoms to get a further check on the extent of DED in the state.

* * *

Welcome to the Club. Delaware turf interests have just organized a new group, the Delaware Turf Grass Association. Purpose, like those in many other states, is to get turfmen together for management sessions and to further and review research. Walter Petroll, Winterthur Gardens, heads up the bylaws committee, and Edgar Downs, Rehoboth Country Club, is the new president.