

FLORIDA AQUATIC WEED CONTROL AQUATIC WEED CONTRACT MANAGEMENT



Aquatic weeds grow rapidly in a nutrient medium provided by surface run-off.

The following is excerpted from an interview with Tom Latta, vice president, marketing and administration, and Elroy Timmer, vice president of operations of Florida Aquatic Weed Control, Inc.

Timmer has 14 years of experience in aquatic plant management. He was a field technician for the USDA at the Aquatic Research Laboratory, and was involved with preliminary work in testing products now on the commercial market.

Florida Aquatic Weed Control, located in Ft. Lauderdale, was incorporated in March of 1974.

What are some of the typical kinds of equipment that you use?

We have one air boat, 8 john boats, five trucks, and three cars, basically for our salesman. Our trucks are all four-wheel drive, pickups with large tires suitable for driving on turf, four wheel drive, so they don't spin if they are trying to pull a boat out. Every piece of mobile equipment, truck or boat, has its own spray facility, essentially to maximize our efficiency. That doesn't mean that all pieces of equipment have the capability of putting on all types of formulations. We have two pieces which are dedicated to granular materials and we have others suitable for liquids, solutions, wettable powders. If we need a boat, we do not unload spray equipment from the truck and stick it on the boat, because you lose too much time doing that. Each boat is equipped with its own equipment.

How is your firm organized?

The organization of the firm is on a functional line. We have market-

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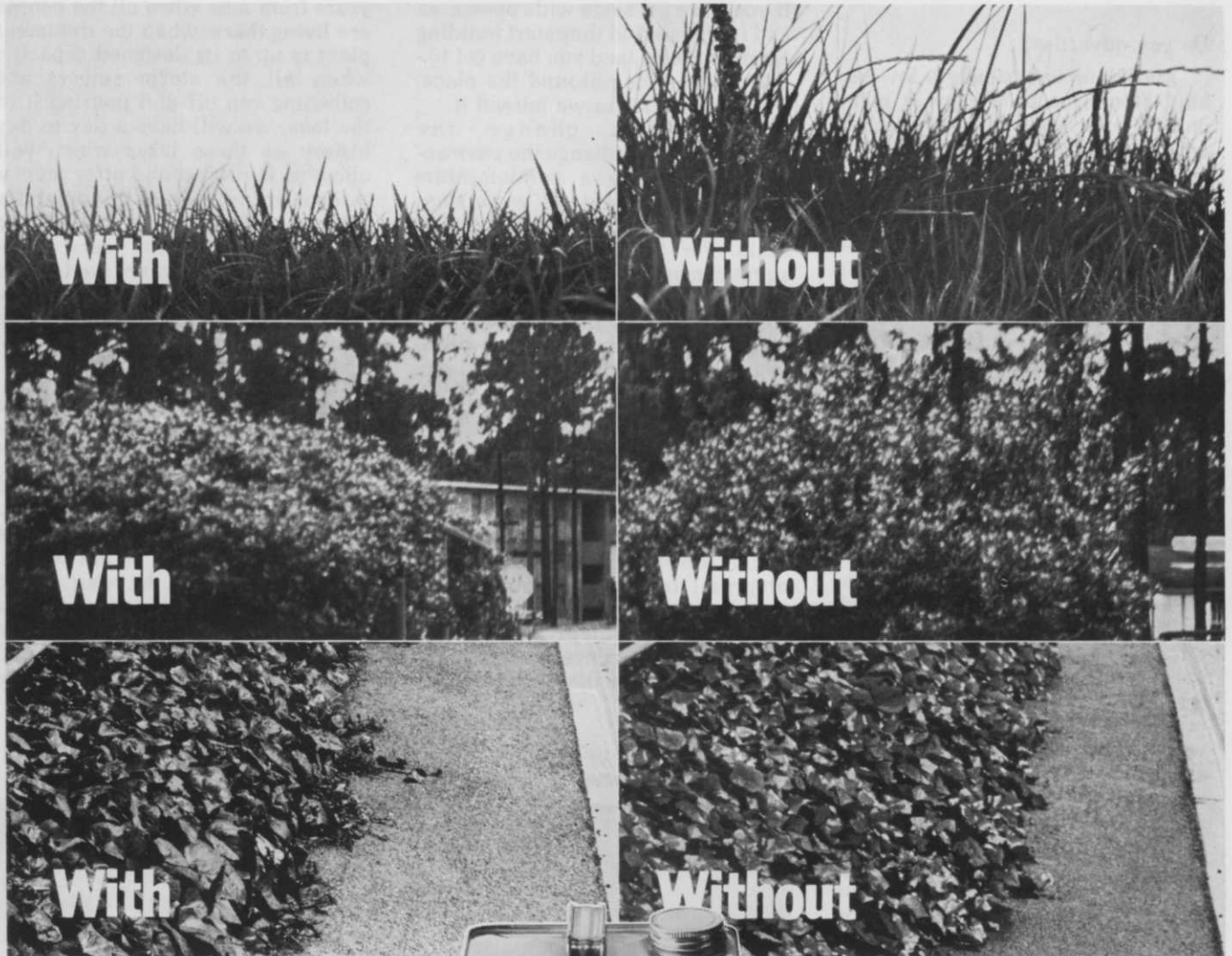


ing, operations, and administration basically. Ninety percent of our business is not application per se, but what we call aquatic management. We do what is necessary, when it is necessary, to achieve the results that the customer wants in a way which is environmentally sound. Many of our customers are golf courses. Many of them are homeowners and associations, condominiums, where they have a need for a clean, healthy body of water. Many of our problems are different in degree, from the problems you may have in aquatics in Ohio or Michigan. We have a growing season which is 10 to 11 months a year, the water here is usually shallow, and it has a high runoff nutrient ver-

The aquatic problems are pretty substantial. All this nutrient gets recycled right away into algae or plankton or microcites. Our problem is to find a way to accommodate this nutrient load. We try and push it into the fish food chain as much as possible.

We are spraying weeds, we are also trying to shift the balance of the nutrients flow from vegetation into either energy consumption by fish, or flesh, fish flesh and crustacean, all sorts of septic organisms. Spraying is an important part of our business, but we feel that the whole thrust of aquatic management is going to be moving away from just chemical applications towards a more integrated approach. I do think that the environmental and

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ecological problems are accommodating all this nutrient that is discharged from rain water runoff, fertilizer runoff, and plant discharge.

Do you advertise?

Marketing is basically a low key kind of approach. We try to make ourself known. We do a very limited amount of advertising. We do a lot of calling where there is water, especially where there are problems, generally trying to make people aware of our capability. Once we do have some interest, we estimate in a very traditional manner what the aquatic problem is, look at the on-site condition — flow, depth, nutrient inflow, drainage area, the body of water it is receiving from, what weed conditions are there, and how hard they will be to control. In fact, before we even talk about control, we want to know what the use of the water is, what degree of control is desirable, and then how do we go about doing that. It may involve chemical treatment, mechanical message, biological control, although nothing so far has been particularly effective in the biological area. The white amur shows some promise at this point. Then we manage the process. Ninety-nine percent of our work is on long term contract. We are trying hard to maintain our position as the professional doing what needs to be done at the time it needs to be done, rather than letting the client call us to say we need to spray. The client basically is reacting to the visible signs of a lake problem and the lake problem is there before the signs are visible to the average lay person. So, we are trying to substitute our technical people with their perspective and get them inspecting what ever water is under management at frequent intervals to ward off future problems.

Are you able then to accurately forecast so that you know in advance what problems an area of water may incur?

Our contracts are one-sided basically. We commit ourselves on price and if the customer is unhappy with the quality of our work we just pull the plug. We have never locked a customer in. Our security is in doing a good job at a fair price. Usually

we don't go long term right off the bat, we will go one year. After one year, with our history and knowing what is happening, knowing the hot spots, knowing what is going on then, we think we can reasonably project. If you have got some wide open area and in that period they start building condominiums, and you have got 10,000 people living around the place, you bet your socks we missed it.

When you change the parameters, you change the environment. We have a condominium development where all work stopped in 73-74 and it is getting started again. For 2-3 years they had no aquatic management and they had no problems. We did a little bit of work there, just in the developed areas where there were some problems with fertilizing the lawns, etc. There was a lot of water and no problems. They asked us every so often what to do about it and we said nothing. Don't pay us — don't pay anybody. Now they are starting to develop again. The water is O.K. but they want to start getting everything under control. We've given them a proposal for a staged program so that the water areas can be brought into proper control position in parallel with the development plans as they open up the section. They

will want lawns in, driveways, parking spaces, buildings, street lighting and water. So we are integrating our work with them. We're not going out on a tree here. We are taking it as, say, expanding the program. Two years from now when all the people are living there, when the treatment plant is up to its designed capacity, when all the storm sewers are collecting run off and pouring it in the lake, we will have a day to day history on those lakes which will allow us to project and offer them a three year program. At this point it is hard to tell just what the aquatic problems will be two years in advance. We do this where we feel we can do it with an acceptable degree of risk and where we feel the risk is small.

Because you are on these long term contract basis most of the time, are you on a retainer or consultant fee?

No, we are on a predetermined fee and we do what we have to do. Our cost fluctuates, heavier in the summer and lighter in the winter. That is the nature of the beast. We do not charge on a what we do basis because then it gets into a vast area of uncertainty, what did you do, and should it have been done, could we

Forsighted management could have prevented this problem.



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have done it cheaper, and that sort of thing. This way, on the long term fee the customer knows what it costs as much as three years in advance.

Do you maintain a large inventory of chemicals?

We maintain a reasonable inventory. We do not stockpile at the beginning of the year. We have not yet become involved in responding to early order programs. We have some opportunity but we are not in the distribution business. We go through distributors that service this area. While we maintain a reasonable inventory, for our own convenience, it is also for the convenience of our operations people. We may have 60 different chemicals. Chemicals such as adjuvants formulating aids, one thing or another, emulsifiers, but some 60 different items that we may employ. We don't try and maintain \$10,000.00 of each of these. We do have to have it on the shelf when we need it, because we never can tell ahead of time what we are going to need. It all ties back to the nature of our business, which is aquatic management rather than government business. For example there may be a treatment scheduled for next May for 400 acres of hydrilla, where at this point you need so many gallons of chemical X and so many gallons of chemical Y so you purchase it in that fashion. We cannot anticipate our problems in that fashion because we don't get that heavily into that segment of the business.

What is the market potential for your firm?

That is a toughie. I would have expected that there be a pretty substantial market potential for people involved in aquatic management the way we approach it. There are quite a few people involved in spraying and I would say the market potential for spraying is kind of limited. There is accumulation of chemicals, most of the chemicals being used today are pretty well inspected as far as safety and environmental standards. There is a legitimate concern about indiscriminate use of chemicals in other states and Florida. We only operate in Florida with a minor amount outside. Other states we are familiar with are pretty strong min-

ded as far as what techniques and chemicals should be used, and how they should be used. We don't always see eye to eye with all the state regulatory people. But I think that is the thrust, if we can find better ways of caring for water and the nutrient verdant we will all be better off. So I would say that the market potential for sprayers per se is limited to the degree that we are going to more of a management program.

What is the future of aquatic plant management in general?

Basically more of the same, more environmental concerns, legitimate concerns. More need to be perceptive and thinking about what is the impact of chemicals, what is the impact of biological control. The White Amur I think is a case in point. It eats weeds and converts it into protein and has a pretty good appetite for hydrilla. It doesn't seem to be effective in some other weeds. But, hydrilla is a major problem. If the fish, the Amur, can be used safely, I think it represents a significant aspect. We're looking forward to incorporating it. We are not answering the question of whether it is safe, from an environmental standpoint, as many people much smarter than we address that question. Florida has recently taken a first tentative step towards using the Amur. Nothing has happened yet, but the cabinet has approved a proposal which the Department of Natural Resources submitted for limited use of the Amur under closely controlled circumstances. That was just sticking their toe in the water, and if it works, I imagine the program will be an advantage.

Our concern is that proper inspection, management, and proper feedback of the field experience be assured, so that when we try this experiment we start developing something. We want to close the loop, so that the information gets back to professionals in a way that they can understand, digest, and in time find meaningful. I think this is fundamental. We are a little concerned about some of the regulations as they've been proposed because they do not give sufficient weight to this concern. I do think it is an opportunity. If the thing is environmentally safe, it will be a good, effective

tool. We think it will be a tool that we can integrate into our existing programs and add one more string to the bow. I don't think it is going to answer it. I don't think it is a threat, because we don't look at ourselves as chemical sprayers. We look at ourselves as aquatic managers.

Does a government agency actually inspect your work on a routine basis or do they wait until problems develop?

There are three governmental agencies in Florida. Then there is the E.P.A. The three in Florida are the Game and Freshwater Fish Commission, the Department of Environmental Regulation, and the Department of Natural Resources. You should switch the order because the D.E.R. is concerned with pesticides and labeling, but once you're using approved chemicals and methods then they are not active on a day to day basis. They are active, for example, if there is a fish kill, or if there is a pollution problem or an oil spill. On a day to day basis we are governed by the Game and Freshwater Fish Commission and the Department of Natural Resources. They work hand in hand. They have slightly different jurisdictional responsibilities. There is a permitting system here where you can apply for permits to conduct aquatic operations, and that means anything, chemical, mechanical, biological, or dredging. Any form of aquatic control requires a permit. We apply for the permit and that is dated with the date of the expected program. Generally we take a look at the weed species that are there and the water usage and sketch out a program and then stay within our permit. If we need a modification of the permit, we apply for it. We provide a monthly report to the state that tells what we did.

It is easy to stay within their guidelines?

The guidelines are basically the label. The state has been pretty good about not coming up with a lot of trivial stuff. I have talked to people in the aquatic business in other states and some of them have to put up with an unholy amount of what I would call trivial. So, we can't complain.



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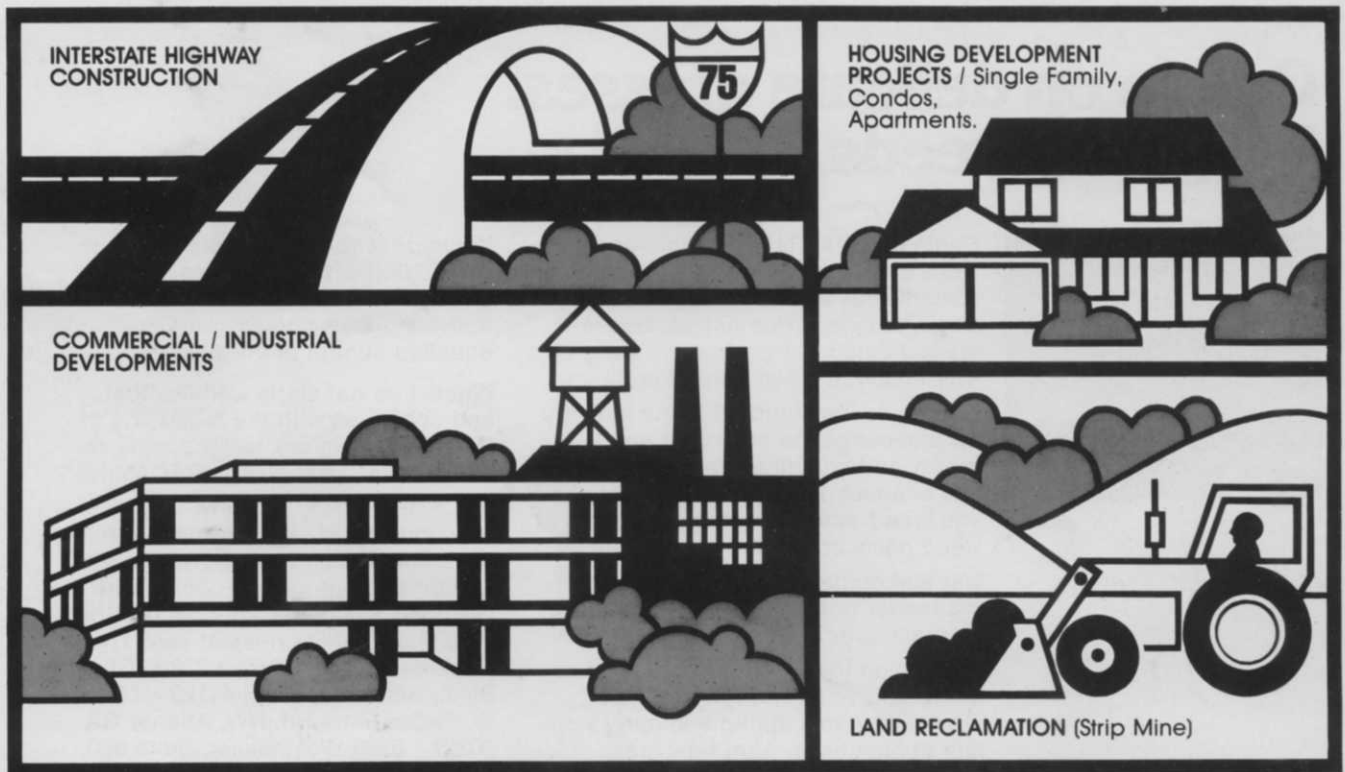
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FOREST CITY TREE: TREE PROTECTION CONTRACT APPLICATION



A roto-mist sprayer comes in handy, when more than one side of the tree can be reached with it.

William P. Lanphear has been an arborist since he graduated college in 1937. He was president of the National Arborist Association in 1971. He is immediate past president of the American Society of Consulting Arborists. He is a member of the International Society of Arboriculture, and the Ohio chapter of that organization. He is also a member of the Ohio Association of Nurserymen and the Cuyahoga County Association of Nurserymen. His company, Forest City Tree Protection Co. is located in Mayfield, Ohio, a Cleveland suburb.

Please describe your equipment inventory.

Forest City Tree Protection Co. has five sprayers in operation. We have a large roto-mist that we use in private and public work, whenever possible. We have two 600 gallon Bean hydraulic sprayers, one is a 60 GPM and the other is 35 GPM. We also have a 30 GPM sprayer. We use them for different types of spraying. For spraying elm trees we usually use the 60 GPM in conjunction with the roto mist. If we can reach the tree from more than one side, we use the roto mist, which is handy. If we cannot, we use a hose from the hydraulic.

What chemicals do you use?

We do other spraying than elm tree spraying. We do a dormant oil spray, which is mostly hydraulic. Then we go into foliage sprays for various problems. We also spray evergreens. We spray specialized things like hollies and magnolias, and crab apple trees for fungus. For the elm tree spray we use an emulsifiable concentrate. We use Methox-

ychlor, which is applied pretty strong. In the dormant oil we use the highly refined superior oil.

We also inject elms with Lignasan. Lignasan is a name, but there are trade names, one is called Elm Innoculate. We recommend that, but in addition to spraying and sanitation and all the other elm protection we recommend the injection. We haven't had much luck saving elms that are already diseased, unless it is minor, like 5%. Then we feel we can cut out the diseased portion, inject the tree and save it. If it is diseased in any amount more than 5%, it is pretty hard. We will inject it and try to save the elm if people want to spend the money to try, but with no guarantee whatsoever. It is like a cancer treatment, you try to save the patient, depending on the worth of the tree and the ability of the customer to pay for it. For routine care, we don't advocate it. If the tree is that far gone, you will probably have to take it down. In the prevention field, if the tree is healthy, we recommend spray and injections, and trimming out the dead wood and removing disease nearby. We do quite a bit of that. We also inject trees with the Mauget system of fertilizing and providing necessary elements. We have another injection system called Medicap. We don't have quite the problem in the Cleveland area which requires the use of Medicap because we have more of an acid situation. Where you have chlorosis due to a lack of iron or magnesium, we would use the Medicap injection.

We had an epidemic last year of cottony maple scale. That comes every once-in-awhile. We were pretty well pressed to do that. Every year some type of problem comes along.

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