OSMAC can convert ANY irrigation control system.

Using the hand-held portable radio, you can command your irrigation system from anywhere on your course. You can command your system to run any station or group of stations you choose either sequentially or simultaneously, when you choose it.

And, with either the hand-held portable radio or a telephone, you can even command your system from your home, when that's more convenient.
Taking Responsibility For Your Own Destiny

To be successful, you must create your own reality, says Dr. Richard Harshberger of Virginia Polytechnic University: "You will never get any more than you expect."

Winners expect to win, and success thus becomes a self-fulfilling prophecy, he notes.

Harshberger defines success as "the progressive realization of a worthwhile dream or goal."

"The goal should be out of reach, but not out of sight," he says.

Here are proven methods you can use to climb your way to success, no matter what your job description or duties:

1) "Whenever something bad happens, find out what you can salvage." Harshberger says that you shouldn't let the aura of failure dominate your outlook, but when disaster strikes, try to learn from it and not make the same mistake again.

This is a matter of growth. Consider the toddler who must fall down time and time again before he learns to walk. Consider the expansion baseball team that must first win a few games, then play .500 ball, then make the playoffs—a process taking years at the least—before it wins the World Series.

2) "If you want something, you have to give up something else. It's always a matter of priorities."

Although there are widespread concepts of what exactly defines success, we each define it for ourselves. For one person, success might mean working 18 hours a day to make $250,000 a year and thus being able to provide for a family. But for another person, it might be making 1/10th of that, yet having the spare time to devote to actual family activities.

3) "Remember that success is a journey, not a destination. The minute you get where you want to be, you're dead."

Goal-setting is an on-going process. When you meet your first set of goals, establish another reachable set. Then again, and again. Adopting this philosophy, you may never be able to claim you're wholly successful, but you'll be able to look back with pride at your accomplishments.

4) "Competition is a negative concept: you try to beat somebody to the punch. But success is a win-win proposition: it's finding a new way of doing things."

Harshberger says you shouldn't necessarily set your sights on just competing, but on succeeding. And there's a big difference.

5) "Envision success. See yourself succeeding at whatever it is you want to do." High achievers mentally picture ideas that are goal-oriented, much like the professional golfer envisions his next shot hitting the green, bounding toward the pin and ultimately rolling into the cup. Use your imagination. See it happen.

6) "Don't worry about being liked, be respected. Be fair, honest, above-board." The old sports adage "Nice guys

(Continued on Page 21)
Like everything else, continued education isn’t cheap. Have you checked the price of tuition lately? Or how about your basic textbook?

Today's turf students have their work cut out for them, in more ways than one. National Mower and North Star Turf have come up with an idea to help lessen the financial burden felt by many students. It's a fool-proof plan, but we desperately need your help. Here's how it works . . .

For exactly one year, beginning July 1, 1993, National Mower and North Star Turf will donate $1.00 to the MGCSA Scholarship Fund for every inch of cut when an MGCSA member purchases a National mower. This means when you purchase a 68-inch National, we will contribute $68.00 to the scholarship fund. The purchase of an 84-inch National would result in, you guessed it, an $84.00 contribution.

Those of you who own a National are very familiar with its reputation as a reliable, durable triplex delivering a quality cut. For those of you who have never owned a National, there's no better time to buy one and, at the same time, help some needy turf students work their way through school.

Show some school spirit. Buy a National!
Turfgrass PGRs Near Widespread Use

Turfgrass plant growth regulators (PGRs) are in theory a great idea. They may perform well in the laboratory, but when put to the test in commercial landscape maintenance, they can become unpredictable and produce undesirable results, especially in fine turf situations.

PGRs have been around for at least two decades, either under testing or as registered products. Most of the registered materials are used in niche markets or for large low-maintenance areas like roadsides, airfields, levees, stream banks and golf course roughs.

In reality, commercial PGRs have not gained truly widespread use in fine turf maintenance.

But, that may be changing with a new class of PGR chemistry. The first one to reach the commercial market is likely to be a product from Ciba-Geigy, Primo. What makes it different from the rest is that it is foliar-absorbed (other PGRs are activated through the soil.)

“There has been a lot of interest in PGRs over the years and some of them have enjoyed what I would call specialty market success, but for the general landscape market there has not been a truly effective, reliable fine turf plant growth regulator for general use,” says Dave Hanson of San Jose, Calif., manager of technical support for Environmental Care’s maintenance operations in seven states.

“Most turfgrass stands are a mixture of grasses and weeds, and PGRs react differently on different grass and weed species. The result is uneven response,” says Hanson.

“PGRs have looked good in certain niche situations, but none has been able to gain a broad market,” says Kidd, who is a former commercial landscape maintenance contractor.

Kidd admits Primo is a “different kind of plant growth regulator” because of its foliar absorption actions. “Primo has looked good - probably better than most other PGRs in university tests. The real challenge will come when it is put under commercial customer-use conditions,” he says.

Ciba-Geigy is expecting federal Environmental Protection Agency approval for unrestricted use this year. The company hopes a California label will follow. It has been tested under an Experimental Use Permit.

Researchers have found Primo use reduces biomass 40 to 50 percent over a six- or seven-week period and enhances root development of the turfgrass without any adverse effects.

Hanson has been testing it and other new PGRs for several years. “There is not as much discoloration and injury with this new chemistry, and results are more consistent,” says Hanson. “Not only has the chemistry evolved, but I think the industry is a little more sophisticated in doing a better job of using these new products. I think we have reached the next level in the evolution of PGRs.

“We are reaching the threshold of widespread PGR use on turfgrass,” he predicts.

Primo, says Hanson, has a broad spectrum of adaptability across both warm and cool season grasses with relatively minor discoloration. “We are working on making that, which is always a prime concern when you look at PGRs.”

Primo’s activity on the plant can be reversed with heavy water and fertilizer use:

That masking effort and the countless hours Hanson puts in evaluating PGRs is justified because of the tremendous economic benefits these products offer.

“PGRs should be viewed as labor-saving tools just like more efficient mowers, better edgers or controlled release fertilizers. There are so many places where there are intensive turfgrass maintenance practices - lawn edging, edging around headstones in cemeteries, large expanses of fairly uniform, rapidly growing turf that is mowed quite frequently in the summer and objectionable seed head production - where these products could save a tremendous amount of labor by slowing down turf vertical and lateral growth,” Hanson says.

Besides labor, there are also the issues of increasing dump fees for clippings, wear and tear on equipment both to mow and edge and haul clippings to the landfills.

Despite somewhat less than resounding successes in developing PGRs, major chemical companies continue to research the subject. “Some very big companies like Scott, DowElanco, CibaGeigy and others continue to believe there is a big commercial potential in PGRs, and they are correct,” says Hanson. “Those of us in the commercial landscape maintenance business continue to face escalating costs and increasing competition while being challenged by our customers to produce a high quality product at lower costs. We must continue exploring the area of plant growth regulators to gain the

(Continued on Page 18)
Preparing For Success

Five Skills That Can Help You Succeed

What will it take to be a successful business owner or manager in the years ahead? As surprising as it may seem, it won't be such popular prerequisites as having the right connections, a proven track record or good financial relationships.

Being able to choose and manage the right people and projects won't be near the top of the list, either. It would be naive to suggest that these qualities will become inconsequential, but they certainly will be far less important than in the past.

What will cause the key business skills of the past two decades to become almost irrelevant? One factor stands out—a factor most of us have immense difficulty dealing with: progress.

Since the start of the Industrial Revolution in the late 18th century, Western society had been dominated by the idea of progress. In fact, progress has fired the engine of free enterprise more than any other factor. We have always assumed that if we apply our knowledge, talents and resources properly, we will enjoy the benefits of an improving standard of living.

Christopher Lasch, author of "The True and Only Heaven," writes: "Luxury for all: Such was the noble dream of progress." The attitude that there is no "ceiling" on progress has always dominated the Western mind and driven the free-enterprise system—until now.

A new idea is emerging—one that many will quickly label as subversive. Fewer and fewer people will dream of driving a Mercedes, reaching the top of the corporate ladder, or owning a home or a vacation home. In other words, for consumers, "better" will quickly replace "bigger" as the primary goal. For business, this means "the art of the deal" is dead, along with all the big-time wheelers-dealers.

What skills will you need to be effective in this new business environment? While there are several to consider, the following five are essential:

You must be able to put your ideas on paper. Thirty years ago, a middle-aged, Harley Davidson-riding professor at the University of Wyoming said, "Those who say, 'I know what I mean; I just can't express it,' don't know what they mean." He was correct.

Many employees have been able to survive in the expanding business world by virtue of their personalities or technical expertise. What many of these people are discovering now, as they approach middle age, is that they lack the communication skills needed to get ahead. As a result, there's no place for them in tomorrow's business world. They are history.

Most business people are in trouble because they can't express their thoughts in writing. Most likely, they have been getting by on "fuzzy thinking" for a long time. Today's standards are changing. You need to use solid thinking to survive in the business world. If you can't put it down on paper, you're out of business.

You must be able to make effective group presentations. For some reason, we have erroneously concluded that working with people on a one-to-one basis is more important than working with groups. In fact, one survey reveals that most people would rather die than speak before a group.

In a sense, making an oral presentation is the one "no-excuses" act in our life. If we fail a test, we can say we didn't have time to study. If we don't get a promotion, we can blame it on the boss. "He's always had it in for me." But when we stand before a group of people, we're like the emperor without clothes. We're all alone on a stage. We have no one else to blame for our mistakes.

The ability to get people on your team, to get them to express their aspirations and to verbally "put your arms around them" is a skill that really makes things happen.

You must be able to develop original ideas. For centuries, analytical thinking has been considered a fundamental precept of education. In fact, it still is considered to be the antithesis of, and the best defense against, propaganda.

Over the years, we have criticized Soviet speakers for mouthing "the party line." Yet, "the party line" prevails in just about every American business. We avoid certain issues, describe competitors in derisive ways and still consider yesterday's ways of doing things as almost sacred.

Business and ideas seem to have an oil-and-water relationship. Business people see themselves as "doers," not "thinkers." Therefore, they value action-oriented people and treat thoughtful individuals with disdain.

Original ideas will be essential in the future. The ability to analyze issues and conceptualize our thoughts will make the difference between failure and success. We can no longer afford to make mistakes.

You must possess the power of persuasion. Persuasion is often equated with getting people to act in ways that may not be in their best interests—like convincing Eskimos to buy Hawaiian shirts.

Actually, persuasion involves the ability to think from the other side's viewpoint. From a marketing perspective, persuasion involves understanding what the customer wants to buy, not what the business owner wants to sell.

Why do some people find Lee Iacocca so captivating and George Bush so dull? The fiery chairman of The Chrysler Corp. ignites a group and elicits a response. President Bush, on the other hand, seems cool and aloof.

Consider this: US troops in the Persian Gulf were ready to fight for Gen. H. Norman "Stormin' Norman" Schwarzkopf but not for "Preppy" (Continued on Page 18)
Smithco Super Rake

Greens King IV
Greens Mower

LF-100
5-Gang
Fairway
Mower
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PGRs—
(Continued from Page 14)

benefits they offer.”

Hanson says today’s new generation
of PGRs has an average effectiveness
period of six weeks, “but that does not
mean you can stop mowing for six
weeks. It means you may be able to
skip every other mowing or mow ev-
every three weeks.”

Hanson warns that use of a turf-
growth regulator puts the
plants under a certain amount of
stress, and inappropriate sequential
applications could well have an ad-
verse effect. “It’s critical to know the
product and site you are working with.
“The cardinal sin in using these com-
pounds is applying them when a
plant is under stress. One of the
problems we had in the early days in
using PGRs on bluegrass in the San
Francisco Bay area was that when
you used a PGR on stressed turf, it
resulted in a rust infestation, and the
grass turned orange.”

While the new chemistry offers
more hope for a widely adaptable
PGR, Hanson says they still should be
used “only at the right place at the
right time.”

“And, evaluation must include
costs. There must be cost-benefit
study on each side. It may not be
financially feasible to use PGRs on
some sites. It may be cheaper to mow
more often.”

—Harry Cline,
Western Turf Management,
February 1993

Kimm Named
Acting Head

Victor Kimm has been named to
replace Linda Fisher, former assistant
administrator for EPA’s Office of Pes-
ticides and Toxic Substances, on an in-
terim basis until a permanent
replacement is named.

Kimm was deputy assistant ad-
ministrator under Fisher, who left the
post shortly after the election of Presi-
dent Clinton. The position requires
presidential appointment and Senate
confirmation.

Fisher currently is acting as a con-
sultant for the agency.

MEMBERSHIP REPORT
JUNE 14, 1993
LAFAYETTE CLUB

NEW MEMBERS—JUNE 14, 1993
Steve Huff University of Minnesota Class C
Jerry Holman Designer Soils Class F
Jim Kaufman MTI Distributing Class F
Thomas Schmidt Anoka Technical College Class C
Tim Nelson Anoka Technical College Class C
Robert Porter Anoka Technical College Class C

RECLASSIFICATIONS—JUNE 14, 1993
Michael Brual Hazeltine National D to B
David Kohlbry Northland Country Club B to A

John Granholt, Membership Chairman

Success—
(Continued from Page 15)

George.

Old adages, such as “just find their
weak spot,” or “hold a gun to his
head,” or “play hardball if you have
to,” are history. These ideas only left
waste and wreckage scattered along
the wayside! Now, and in the future,
everyone will be important. We’re
finding out that the supply of cus-
tomers and prospects is anything but
endless. Intimidation is out; persua-
sion is in.

You must be able to stay on
track. Many so-called “business lead-
ers” possess little or no vision. In fact,
the 1980s will serve as a memorial to
the megalomania of certain “captains
of industry” whose goals (which were
invariably short-term) were far more
personal than corporate. Their wants
took precedence over everything else.
Perhaps they got off the track because
they had no vision for the future.

Fortunately, the ’90s seem to be
shaping up quite differently. There
will be few opportunities for megalomaniacs. Today’s times require
business leaders who possess such
personal qualities as inner trust, de-
termination and self-confidence—
quite a change from the “knock ’em
dead” types of the recent past who be-
lieved they had the extraordinary
capabilities to do anything and every-
thing well.

The ability to stay on track indi-
cates you are comfortable with your
vision of the future and have the sta-
mina needed to stick with it. The peo-
ple who build businesses don’t deal
them like cards at a Las Vegas gam-
bling table. They aren’t looking for a
royal flush; they don’t want a pile of
chips. They are not seduced by their
own fantasies.

These five leadership skills are in-
dicative of what it will take to be suc-
cessful in tomorrow’s business world.
Without question, some people who
don’t fit this profile will still rise to
the top. In fact, there may be many of
them.

But before accepting what they
represent as truth, just think of what
happened to Donald “The Donald”
Trump and the guy who flew off the
handle at Eastern Airlines. What was
his name?

—John Graham,
American Nurseryman
Special GCSAA S&R Grants Offered to Graduate Students

Outstanding graduate students in the field of golf course management education and research now have a new grant program available to them.

The Golf Course Superintendents Association of America (GCSAA) Graduate Student Grants Program will provide annual awards of $5,000 to individuals pursuing advanced degrees in academic fields related to golf course management.

The goal of the program, sponsored by the GCSAA Scholarship and Research Foundation, is to identify and encourage tomorrow's leading educators and researchers.

To be eligible, students must be currently enrolled in a master's or doctoral degree program related to golf course management. Students must also plan to pursue an academic career in a university setting.

Applicants will be evaluated on academic excellence, potential to make outstanding contributions in research and education, peer recommendations and previous accomplishments in their field. In addition to the cash award, winners will receive an expenses-paid trip to the GCSAA International Golf Course Conference and Show.

The deadline for applications is October 1. Awards will be presented in early February. Application forms are available from the GCSAA development department (913/841-2240).
Unfortunately, our most desirable turf species are among the slowest to germinate. For example, Kentucky bluegrass is very slow to germinate, taking several months to fully establish. This gives weeds plenty of time to overtake the sluggish bluegrass. Likewise in turfgrass mixtures, more aggressive turf species can overcome the slower bluegrass. For example, in a mixture of Kentucky bluegrass and perennial ryegrass, the ryegrass often dominates the slow-to-establish bluegrass. To compensate for this, turf managers may plant 90 percent or more bluegrass in the seed mixture to obtain a 50:50 mix of plants. This can lead to clumping or segregating of the two species.

Turf scientists have tried for years to speed up turf seedlings. There are three methods used to enhance the germination of seeds:

- Presoaking seed in water,
- Presoaking seed in water and giberillic acid (GA), or
- Seed priming.

Presoaking means partially germinating seed before planting. Usually, the procedure involves placing the seed in a 55-gallon drum containing water, using an aquarium pump and an air stone to aerate the seed for 48 hours or more, and then planting the seed wet.

The most vigorous seed will usually germinate in the water—here, we define germination as the root and shoot breaking the seed coat. This presents a problem—seed must be planted wet, and wet seedlings are susceptible to physical damage. Furthermore, you must plant presoaked seed into a damp seedbed immediately after treatment or the seed is wasted. Planting into a dry seedbed results in severe desiccation to your most vigorous seed—those that have already germinated or are germinating. Adequate moisture has to be maintained after planting until the stand is established.

Presoaking in water and GA will result in more rapid and uniform germination. This works best with annual ryegrass and tall fescue. This method of presoaking is done by dissolving a very small quantity of giberillic acid in water—1 ounce of giberillic acid in 75 gallons of water. The seed should be presoaked in this solution for 2 days at 77 °F, while being aerated with an air stone and an aquarium pump. Again, the seed must be planted wet, so you’ll encounter the same problems you had with presoaking in water alone. The advantage of this method is that seed will germinate 3 days sooner than those soaked in just water.

Seed priming

Scientists in the vegetable industry have developed a method called seed priming to deal with slow-to-germinate crops and weak seedlings. Seed priming or osmoconditioning is a seed pretreatment where moisture is controlled, allowing the seed to be brought through the germination process, just before root and shoot emergence. Nothing breaks the seed coat.

The difference between presoaking and priming is important to understand. In priming, the root and shoot do not break through the seed coat. You can plant the seed dry using traditional methods without any physical damage to the seed. Conversely, in presoaking, roots and shoots have emerged from the seed coat in the more vigorous seed, and you must plant the seed wet using a hydraulic seeder.

In priming, the seed is soaked in a solution concentration that makes only a certain amount of water available to the seed. We use solutions containing polyethylene glycol (PEG 8000) or various salts (NaCl or table salt). PEG is a non-toxic thickener found in shampoos and soft drinks. The large molecular size of PEG prevents it from penetrating the seed coat. But, it is very expensive, so we also prime with various salts, such as table salt. Salts present some hazard because they penetrate the seed coat and may be toxic to the seed, as in the case of potassium nitrate.

Testing procedures

Our testing procedure to evaluate potential priming treatments uses petri dishes containing blotter paper, soaked with the experimental solutions. We place 50 seeds in the dishes where they prime in a germinator set at a constant temperature, (usually around 60 °F) for a set period. When priming is complete, we rinse the seed in running tap water and then dry them at 60 °F until they are surface dry. We then place them in petri dishes with blotters soaked in water where we germinate them and test them against untreated seed.

We do daily seed counts to monitor their progress. We also run germination tests in the field using 1-in.-diameter mini-plots, which we monitor daily. The field tests give the advantage of seeing how primed seed performs under natural conditions.

If we plan to store primed seed for any period, we store it in a refrigerator. Priming effects subside over time at room temperature. However, even old primed seed never performs worse than untreated seed. It may eventually equal untreated seed, but it never drops below it.

(Continued on Page 21)