

IN THIS ISSUE

Feature Articles

- LCAP Cool Season Turf Course Front cover
- Spray Drift Front cover

LCAP News

- LCAP '05 Winter Conference 5
- LCAP Member Profile 5

Industry News

- Threatening EPA Poster 6
- Current Government Issues 6,7
- 2004 PLCAA Legislative Day 7
- Estimating Job Costs 8-10

Business

- Operations 11

Our Advertisers

- Fisher and Son 4
- LESCO, Inc. 9

"Management of Cool Season Lawns"

LCAP and PLCAA OFFER NEW TURFGRASS TRAINING INDEPENDENT STUDY COURSE

The Professional Lawn Care Association of America (PLCAA) and the Lawn Care Association of Pennsylvania (LCAP) announce the partnership between the two associations to offer Certified Turfgrass Professional – Cool Season Lawns – an independent study.

PLCAA Executive Vice President, Gary Clayton said, "PLCAA is pleased to announce the new partnership with LCAP to offer the new course." He added, "The independent study allows the participant to learn the subject at his own pace, without attending formal classes. Like other educational and self-improvement activities, the more one puts into it, the more he or she will learn and benefit from the experience."

The course is designed to provide the beginning lawn care or landscape professional with a foundation for understanding the "hows and whys" of lawn and grounds management in the northern United States. It consists of 10 study sections, each covering a particular topic related to the management of cool-season

lawns. It is comprehensive, with topics ranging from growth and development to calibration of pesticide application equipment. Topics that are most important to lawn care or landscape operations (i.e. fertilization, establishment/renovation, and pest management) are covered in the greatest detail.

"The course was developed by Peter Landschoot, professor of Turfgrass Science at Penn State University and by Nancy Bosold, an extension agent with Penn State Cooperative Extension Service, in conjunction with LCAP and PLCAA," said Scott Chambers, past president of the Lawn Care Association of Pennsylvania. "PLCAA and LCAP members, as well as non-members, will be able to take advantage of the course material, available now through both associations."

Those interested in receiving a descriptive brochure of the course may call LCAP at 800-577-6801. To purchase a copy of the self-study Certified Turfgrass Professional – Cool Season Lawns - call PLCAA at 800-458-3466.



REDUCING SPRAY DRIFT

This timely information on reducing spray drift is continued from the Winter 2003-04 issue of "LCAP News." It is the last of a three-part series.

Chemical Formulation

A coarser spray can be achieved by increasing the viscosity of the spray mix. Increased viscosity results in an upward shift of the droplet spectrum so that there are fewer of the fine drops that are subject to drift. Many spray additives can be added to a tank mix to increase its viscosity.

There are many "drift retardant" chemicals commercially available to pesticide applicators. These products are normally some type of long chain polymer

or gum that increases the viscosity of the spray mixture. Unfortunately, the information related to performance of these products is limited. Results of a study conducted by Bouse et al. (1988) indicated that the effect of polymer concentration on droplet size is dependent on polymer type. For example, polyvinyl and polyacrylamide polymers were found to be more effective than linear alkyl epoxide or polyimide copolymers in increasing volume median diameter and reducing the percentage of spray volume composed of small droplets subject to spray drift. Researchers at Ohio State have tested five drift retardant chemicals to determine their effects on







(continued on page 3)

LCAP NEWS

Lawn Care Association of Pennsylvania

Official Publication of the Lawn Care Association of Pennsylvania

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Reducing Spray Drift (continued from page 1)

droplet size, spray pattern, and spray drift reduction (Ozkan et al., 1992). They determined the reduction in spray volume contained in small droplets for spray mixtures containing water with drift retardants.

In comparison to spraying water only, all drift retardants tested reduced volume of portion of small droplets in the spray but at varying magnitudes. For example, the reduction of spray volume contained in droplets smaller than 100 microns ranged from 30% with the least effective product, to 68% with the most effective product.

Some studies have found that some of these polymers tend to be sheared by passing through a sprayer pump, as would occur in normal bypass, hydraulic mixing in common agricultural sprayers (Zhu et al., 1997). This means that the drift retardant would lose its ability to increase droplet size - its ability to reduce drift - as the spray tank became empty. Gums are not sheared as easily as the long chain polymers, and some types of polymers (poly-ethylene oxide) are sheared in fewer passes through a pump than other types of polymers (polyacrylamides).

Although drift retardant chemicals are effective in reducing the number of drift-prone droplets, in most cases, it is more effective to select the proper size and type of nozzle and operate sprayers at low pressure to produce the desired drop size rather than attempt to increase droplet size with drift retardant chemicals.

Evaporation

With water carriers, spray droplets become smaller as they fall because of evaporation. For typical applications with ground applicators, droplets of 50 microns and less will completely evaporate to a residual core of pesticide before reaching the target. Droplets greater than 200 microns will have no significant reduction in size before deposition on the target. Evaporation of droplets between 50 and 200 microns is significantly affected by temperature, humidity and other weather conditions. Some pesticide formulations are more volatile than others. For example, 2,4-D or MCPA esters are susceptible to vapor drift, while 2,4-D or MCPA amines are practically non-volatile. Therefore, use formulations with low volatility to reduce vapor drift.

Weather

Weather can critically influence the off-target movement of pesticides. Several factors associated with the microclimate at the application site can contribute to drift. These factors include:

- Wind velocity and direction.
- Relative humidity and temperature.
- Atmospheric stability and inversions.

The impact that various weather factors have on drift can be related to the volume of droplets 150 microns or less in diameter. If these small droplets are eliminated, weather's effect on drift is reduced considerably.

You cannot control the weather, but you can control its effect on drift. Here is a brief discussion on how weather-related factors influence drift and how you can minimize their effects.

Wind Velocity and Direction

Factors such as droplet size and downward velocity, air turbulence and spray boom height affect the distance a droplet travels before depositing on an object. However, wind velocity is usually the most critical factor of all meteorological conditions affecting drift. The greater the wind speed, the farther off-target a droplet of a given size

will be carried. The larger the droplet, the less it is affected by the wind and the faster it falls. High winds, however, can cause even larger droplets to move off-target. Therefore, spraying operations should be stopped if wind speeds are excessively high.

Wind direction is as important as wind velocity in reducing the damage caused by drift. The presence of sensitive vegetation near the spray site, particularly downwind, is one of the first things that should be evaluated, but is often overlooked when beginning a spray application. Check in all directions from a spray site for sensitive vegetation, and be alert to changes in wind direction during application. If there are sensitive crops downwind, leave a buffer strip of at least 100 feet or whatever the label recommends (Fig. 11). Spray the buffer strip later, when the wind has shifted away from sensitive crops.

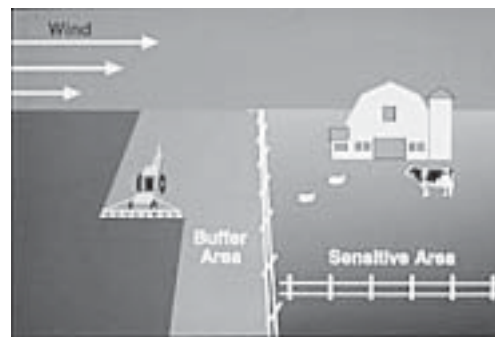


Fig.11. Buffer strips can reduce drift damage to sensitive crops.

Humidity and Temperature

Relative humidity and temperature go hand-in-hand in affecting spray drift. While they generally are not as critical as wind velocity, they are a strong influence in some geographic regions or under certain meteorological conditions. As a particle falls through the air, surface molecules of water evaporate into the atmosphere. This evaporation reduces the size and mass of the particle, enabling it to remain airborne longer and, under the right conditions, to drift farther from the application site (Fig.12). The rate at which water evaporates from the spray particles depends primarily on the ambient air temperature and relative humidity.

It has been shown that a 100-micron droplet requires a little over 5 seconds to free-fall 5 feet if no evaporation occurs. However, in relatively dry, warm air (e.g., 30 percent relative humidity and 78°F), the same 100-micron droplet quickly loses water by evaporation and becomes less than half its original diameter (one-eighth of its original volume) while falling only 2.5 feet. By comparison, in

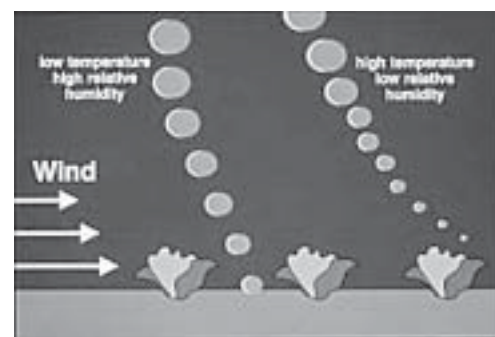


Fig.12. Nozzle selection is a critical force in reducing drift.

(continued on next page)

Reducing Spray Drift (continued from page 3)

relatively moist air (e.g., 70 percent relative humidity and 78°F), a 100-micron particle will fall 5 feet and hit the ground before evaporating to half its original diameter. While evaporative loss of spray materials occurs under almost all atmospheric conditions, these losses are less pronounced under the environmental conditions that occur in the cooler parts of the day - early morning and late afternoon. The relative humidity is usually highest during these cool periods.

Temperature influences drift in other ways beyond its effect on evaporative loss of droplets. Pesticide volatility increases with increasing temperature. Temperature also influences atmospheric air turbulence, stability and inversions - all of which, in turn, affect drift.

Atmospheric Stability

Atmospheric stability is an important factor influencing drift. Under normal meteorological conditions, the air temperature decreases by 5.4°F per 1,000 feet of height. Cool air tends to sink, displacing lower warm air and causing vertical mixing. As a warm air layer rises, suspended droplets rise with it and dissipate into the upper layers by normal air turbulence and vertical mixing. Under these conditions, the opportunity for crop injury at any specific off target site is very small because the pesticide is dispersed and diluted into the atmosphere.

However, other problems may arise when the atmosphere is very stable. Under stable conditions, a warm air layer at some distance overhead may become a blanket, holding down cooler air underneath. This phenomenon is usually referred to as *atmospheric inversion* (Fig. 13). Particles suspended in the cool layer cannot move anywhere except laterally, possibly for several miles. Eventually, the suspended cloud may encounter a downdraft, forcing it back to earth and depositing it of-target - possibly over a sensitive crop (Fig. 14).

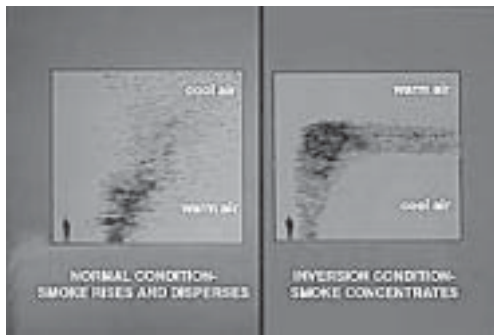


Fig.13. Atmospheric inversion usually occurs early in the morning.

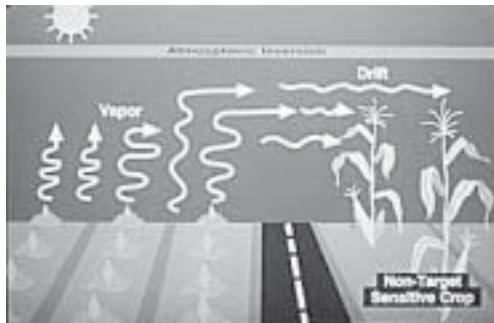


Fig.14. Atmospheric inversion can result in drift damage miles from the target area.

Inversions are part of a daily atmospheric cycle, occurring in the early morning hours when the ground cools the air layer immediately above it. Inversions tend to dissipate during the middle of the day when wind currents mix the air layers. Applicators concerned about these adverse spray conditions should wait until late afternoon or early evening to spray, when there is less chance of the atmosphere being inverted and conditions are more favorable.

Again, the best way to avoid drift associated with atmospheric inversions is to eliminate the formation of small particles (150 microns or smaller) from the spray effluent. If these particles are not in the spray emission, this weather-related phenomenon can be ignored.

Operator Skill and Care

Under a given spray situation, **any one** of the previous eight factors may be the most critical in reducing drift hazards. Ultimately, it is the applicator who determines this critical factor and takes precautions against it. By exercising good judgment regarding both equipment and weather factors relative to each application, applicators can minimize drift potential in nearly every case.

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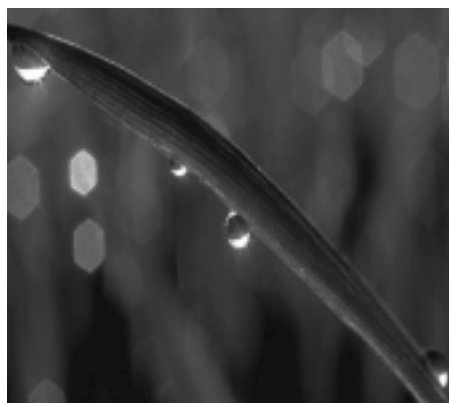
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Thomas G. Galucci

LCAP Member Profile

The driving force behind LCAP is its membership base. Members stimulate and promote the lawn care industry and subsequently increase LCAP's visibility.

The LCAP member to be profiled in this issue is **Thomas G. Galucci**, of Absolutely Lawns, Inc. The company is located in Cresco, Monroe County, PA. Tom has been in the lawn care business for 10 years and has owned the company for that amount of time.

He is a relatively new member of LCAP and cites his reason for LCAP membership as supporting the green industry.

Tom has one son. He enjoys skiing, snowboarding, biking, and wake boarding he currently serves as president of the Barrett-Paradise Lions Club.

Twelve reasons to renew your membership in '05

A Dozen Reasons Why You Need Your Professional Association

- 1. Interaction with real people in the industry.** Associations serve as your primary link to other colleagues. Remember that email and phones are great technological tools, but they can't take the place of one-on-one interaction with fellow industry peers and networking.
- 2. Sharpen your skills.** Taking advantage of your association's educational opportunities allows you to hone your skills and stay competitive in the 21st century.
- 3. Collaborations.** Exchanging ideas is much easier with the assistance of your association.
- 4. Keep up with new laws and regulations.** Your association will monitor critical legislation and keep you apprised of pertinent industry regulations that demand your compliance.
- 5. Get frequent updates on industry changes.** Through websites and publications, your association can inform you about the latest industry innovations, keeping you abreast of the times, not behind them.
- 6. Certification and standards.** As workplace standards and government regulations change, your association can keep you informed and assist you in meeting requirements.
- 7. Use of a recognized logo.** As a member of LCAP, you are able to use the newly redesigned, contemporary logo on your stationery, ads and other promotional materials which will identify you and your business as a recognized professional in the industry.
- 8. Increase your clout.** Getting and remaining involved in your association will allow you to make a name for yourself and achieve that next level.
- 9. Save time and money.** Your association has the tools and information to point you in the right direction when undertaking a new project, saving you time and money.
- 10. Receive quality services.** Whenever you need help, your association will provide one-stop guidance to get the job done.
- 11. Find business partners.** Now that mergers and strategic alliances have become the norm, you'll find potential business partners through the workings of your association.
- 12. Anticipate and prepare for your future.** Associations envision how the industry or profession will look in the coming years.

Current Government Issues For LCAP Members

PLNA discusses tax issues with PA Dept. of Revenue

Staff of the PA Landscape and Nursery Association (PLNA) has been engaged in discussions with PA Secretary of Revenue Greg Fajt and other department officials concerning the current tax regulations on lawn care services and pesticide applications. PLNA staff is striving to ensure that as officials review these regulations, they will take into account the often times confusing (and sometimes

contradictory) manner in which they are currently drafted. PLNA remains hopeful that, at a minimum, the regulations will be updated to provide for enhanced clarity in the near future.

Additional information will be provided as it becomes available. Stay tuned!

Wage and Hour Exemption Reform Advances

Congressional passage of recent spending bills included proposed changes to wage and hour exemption requirements. The wage and hour exemption issues involved supervisory, administrative, professional, computer and sales employees. The final proposed regulatory changes have not yet been issued by the US Department of Labor, but they are expected to be issued within the next few months.

These regulatory changes may help some LCAP members to convert some currently non-exempt employees to exempt status; in particular, assistant branch or operations managers could potentially be exempt from overtime requirements under the new regulations.

Until the final regulations are issued and become effective, employers must comply with current regulations regarding those employees that are exempt from minimum wage and overtime payments.

EPA Poster Considered Threatening

Recently the Professional Lawn Care Association of America (PLCAA), because of its relationship with EPA, found out about a NY press conference and poster to be used by EPA Region 2 (serving New Jersey, New York, Puerto Rico, US Virgin Islands and 7 Tribal Nations). PLCAA then forwarded the wording and the horrific poster to numerous people.

RISE and DC Legislative and Regulatory Services lobbying firm which represents PLCAA and others visited EPA headquarters to complain. With this visit and PLCAA working on getting many to complain, the wording was changed but not the picture. PLCAA will continue to try and get the picture on the poster killed for any future use by other regions.

LCAP members should explain to their customers that they are professionals and know what they're doing!

PLCAA Legislative Day on the Hill and Renewal & Remembrance Project Slated for July 19-20

Members of the Professional Lawn Care Association of America (PLCAA) as well as the Lawn Care Association of Pennsylvania (LCAP) will gather in our nation's capital on July 19 and 20, 2004, in order to educate their elected officials on issues of importance to the industry.

Committed to honoring the men and women who fought for our country, participants will also devote their efforts to a national community service cemetery project to beautify Arlington National Cemetery and Old Congressional Cemetery.

If you are interested in participating in this spirited experience, contact Betsy Demoret at bdemoret@plcaa.org. There is no charge to register.

New Web Listing Consolidates Information on Active PIP EUPS

The U.S. Environmental Protection Agency (EPA) has developed a new Web page that provides a consolidated list of active, plant-incorporated protectant (PIP) experimental use permits (EUPS). The listing provides states and EPA Regions with a quick resource on which states are listed in federally approved PIP EUPS. The new



Number of Golfers is Growing

According to a recent National Golf Foundation study, there's been a 5% jump in the number of "core golfers" — golfers age 18 and older who play eight rounds or more per year.

This is positive news for the golf industry, since it is a glimpse into its current and future health. *Golf Participation in the U.S., 2004 Edition* says the number of core golfers rose from 12.6 million in 2002 to 13.2 million during 2003. Overall golf participation increased by 3.3 percent to an all-time high of 37.9 million golfers.

The two groups with the largest participation increase were women and children. To order a copy of the entire report, call the National Golf Foundation at 888-NGF-2500.

Web page is also intended to provide public interest groups and interested citizens with easier access to information on approved PIP EUPs. The direct links to EPA Dockets provide more specific information.

Plant-Incorporated Protectants (PIPs) are pesticidal substances produced by plants and the genetic material necessary for the plant to produce the substance. EPA issues experimental use permits to allow necessary information/data to be generated before registering a pesticide.

The new Web page, "Current Plant Incorporated Protectant (PIP) Experimental Use Permits" is available on EPA's Web site at http://www.epa.gov/pesticides/biopesticides/pips/current_pip_eups.htm.

FEDS Call for Public Comment on Two Pesticide Issues

Recently, the U.S. EPA called for public comment on two important pesticide issues:

Methyl Parathion IRED

On June 2, 2004, the EPA published a notice in the Federal Register announcing the availability of the Methyl Parathion Interim Reregistration Eligibility Decision (IRED). Public comment is invited on this decision document until August 2, 2004. An organophosphate (OP) insecticide, methyl parathion has been widely used in agriculture. An August 1999 Memorandum of Agreement

(MOA) between EPA and the technical registrants cancelled approximately 10% of methyl parathion uses but significantly reduced dietary, occupational, and ecological risks of concern. Registration for ornamental use has already been removed.

Preliminary Risk Assessment for Metam-sodium

The public can now access and comment on documents related to the preliminary risk assessment of the pesticide metam-sodium, which is commonly known as Vapam, a soil fumigant. This widely used fumigant helps to control weeds, nematodes and fungi before planting a variety of different crops, including potatoes, tomatoes, carrots and strawberries. The EPA published a notice in the Federal Register on June 2, 2004, that initiated a 60-day comment period as part of the EPA's process of reevaluating pesticides to ensure that they meet current scientific standards for health, safety and environmental impact.

If you are interested in obtaining additional information or offering comments on either of these matters, visit the federal register at <http://www.epa.gov/fedrgstr/EPA-PEST/2004/June/Day-02/p12307.htm>, or <http://www.epa.gov/fedrgstr/EPA-PEST/2004/June/Day-02/p12341.htm>, respectively.

Comments can also be sent by mail to: Public Information and Records, Integrity Branch (PIRIB) (7502C), Office of Pesticide Programs (OPP), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460-0001.

PLCAA Salutes...

Green Industry Community Service Volunteers



"Pushing a spreader around a cemetery becomes an honor, not a chore. We get a chance to make the lawn care industry shine. It isn't about regulatory issues anymore. It's about how the value of a piece of lawn can bring to the meaning of life to all involved."

- Prof Fogarty, Coordinator of PLCAA's Renewal & Remembrance Program at Arlington National Cemetery

**Renewal & Remembrance
at Arlington National
Cemetery
in conjunction with
Legislative Day on the
Hill
July 19-20, 2004
Washington, DC**

Each year lawn and landscape companies and industry suppliers dedicate their time, expertise and equipment to beautify Arlington National Cemetery in Washington, DC. The Professional Lawn Care Association of America salutes these volunteers and sponsors for their commitment to honoring the men and women who fought for our country. For a list of past volunteer companies, contact PLCAA at 800-458-3466 or by email at plcaa@plcaa.org.



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***** Volunteers needed for "Renewal & Remembrance 2004" *****
...call PLCAA today at 800-458-3466 or e-mail us at plcaa@plcaa.org!

The Cost of Doing Business

by Phil Nilsson, Green Industry Consultant, Nilsson Associates, www.nilssonbooks.com

Determining job cost is the starting point to intelligent bidding and estimating. And, mastering the skills of estimating is the best defense to help ensure that the work is not over or underbid. Plenty of jobs are lost because of high bids where an acceptable profit could have been made with a lower price tag if the contractor had only known at the time. By the same token, plenty of jobs are won based on low price, too low in fact, making it a miserable experience having done the work. Priced just right is where you want to be but of course this doesn't guarantee you the work, just that if you do get it, there's a chance at profits.

Hit or miss bidding is out of the question because virtually every customer looks for, and usually takes, the absolute lowest price. There is less room for error in setting a price that not only covers cost but also provides an adequate profit. Easier said than done because the entire process must take into account numerous variables of cost in an industry where "time is money" is an understatement.

Of course the lazy way out is to totally ignore the cost of doing business and focus instead on price. The reasoning is that if the price is right, you'll be awarded the job in spite of your costs. This is the same as saying that you have very little control over price and that price is decided in the marketplace. That may be true, but the real reason you want to know cost is not so much that price is solely determined from costs but that cost is your "command center" of

control. If you don't know cost you have no reference point of control. Without cost knowledge you actually give up control and don't know for certain on any completed project what the profit was and in some cases may be uncertain if indeed costs were covered.

With job cost knowledge you can know if you have efficient costs (can't be done cheaper or faster) and that's about as good as it gets. Using your efficient costs as a starting point you can then develop prices. You might want to come up with three price levels for the very same job - Base Price, Realistic Price, and Premium Price. For any one bidding event, do the mental "gymnastics" of trying them on for size price-wise to see which you'd like to go with. Sometimes a contractor may find himself "hungry" for work and at other times booked so far in advance that a lower price is not needed to generate work. Nevertheless, bidding and pricing is the single most important thing you'll do because it is the "future" of where your business is going. Today's bids are tomorrow's customers and the real "make up" of your company. Your company is the customers, you, employees, and assets necessary to deliver your services.

WHERE DO YOU START WITH JOB COST?

Most contractors incur three kinds of cost - direct costs, indirect costs and overhead costs.

Direct costs are those expenses that happen because labor was applied, equipment and vehicles were put into action, materials were used, and work was done. Direct costs are usually easy to predict when you know how much time a project will take and what equipment and materials will be needed.

Indirect costs follow or "tag along" with direct labor, such as payroll taxes, employee benefits, insurance, fuel consumption, depreciation, repairs, and other on-the-job costs. Although payroll taxes, benefits and insurance can be easily estimated, the indirect costs related to equipment are tougher to predict. Depreciation of equipment is a given, but fuel consumption can vary greatly and repairs are often unexpected.

Overhead costs include any expenses that support the operation of a business. Good examples are; rent for facilities, utilities, advertising, property taxes, storage, insurance on buildings, office expenses, and other "behind the scenes" costs that in some cases take place simply because time went by. The overhead expenses, for the most part, take place even when no work was done. Rent and insurance are the most common examples. As with some indirect costs, certain overhead costs are easily estimated - rent, utilities, taxes and insurance - while others - advertising and office expenses - are more difficult to estimate.

The difference between direct costs, indirect costs and overhead expenses can be understood by visualizing what happens in your business on any given workday. Direct costs happen when work is done and labor is applied. The workers come in to work, and as soon as they turn the key in the ignition, direct costs and indirect costs follow them and stay with them all day. Overhead, or "back at the shop expenses," are just that. These costs are "left behind" items of expense that support the operation.

ANALYZING AND USING JOB COSTS.

Labor and indirect costs represent the bulk of expense for most contractors and dwarf true overhead costs by comparison. The questions to answer about these costs can be reduced to what I call "time costs."

Public Comment Period Expires August 23

2,4-D Risk Assessment Information

Since the EPA is taking a closer look at the broad-spectrum herbicide 2,4-dichlorophenoxyacetic acid (2,4-D acid) used in numerous agricultural, forestry, aquatic, and turf applications, listed below is detailed information for researching the risk assessment documents online.

The risk assessments were developed as part of the EPA's process for making pesticide Reregistration Eligibility Decisions (REDs) and tolerance reassessments consistent with the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act (FQPA) of 1996.

According to the online documents, the notice starts a 60-day public comment period for the risk assessments. By allowing access and opportunity for comment on the risk assessments, EPA is seeking to strengthen stakeholder involvement and help ensure decisions made under FQPA are transparent and based on the best available information.

DATES: Comments, identified by the docket identification (ID) number OPP-2004-0167, must be received on or before August 23, 2004.

ADDRESSES: Comments may be submitted electronically (<http://www.epa.gov/edocket/>), click on 'Quick Search' and type into the search box: OPP-2004-0167.) or by mail to Mark Seaton, Special Review and Reregistration Division (7508C), Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460-0001; telephone number: (703) 306-0469; e-mail address: seaton.mark@epa.gov.

This information is directed to the public in general and may be of interest to a wide range of stakeholders including environmental, human health, and agricultural advocates; the chemical industry; pesticide users; and anyone interested in the use of pesticides.

- How much does time cost my company?*
- How much time will the job take?*
- What are my hourly or time profit goals?*
- What are my hourly direct costs?*
- What are my hourly indirect costs?*
- What is my overhead rate per hour?*

To answer these questions is to formulate a bidding system.

You can easily relate to a financial statement and assign time costs to each expense category by simply dividing each cost category by the total number of production hours your company applied over the course of your season. Doing that gives you a capsule of actual costs, and it can be used to compare to estimated costs that were used at the job bidding stage. The variations between estimated job costs and actual costs are then used to find cost variations. In other words, job costs were bid at, or **supposed** to be bid at, a certain price, and the actual costs were different.

WHAT DO YOU NEED TO BID THE WORK BASED ON COST?

A good understanding of work require, along with good labor time hour standards. This is the crucial step to the entire job estimating process. If you don't know within perhaps 10% of labor time required, your job bids are destined to be inaccurate. Labor is a big factor, the biggest single expense you have, and costs are highly dependent on job time knowledge. You thought a job would take 1,000 hours and it took 1,200.

A knowledge of job specifications and job time standards, or experienced times for each phase of the work.

An hourly cost factor for the three areas of cost, including direct costs, indirect costs and overhead costs.

A realistic attitude about profit per hour that can be added to costs in arriving at a total price that the customer can afford which will stand the test of competitiveness and will turn a profit. Keep in mind that if your company does not operate efficiently this is not the customer's problem and the competition may not allow adding profits on top of inefficient costs just because you happen to need to earn a living. Production time and methods needs to be "as good as it gets," then add a realistic profit to it and this will also tell you your "walk away price" as well.

MAKING JOB COSTS HAPPEN...

Once you have a handle on hourly job costs and can assign these costs to job functions that will take place at the job site, you need to make them happen by adhering to labor time budgets. This is where the labor hours and costs on paper are proven at the job site with good control over expected, or anticipated, costs and actual costs.

Can you get the job done within the estimated time? Profits go up and costs go down when the job is done faster; profits go down and costs go up when the job takes longer than expected. Having said that, job costs are truly estimated costs since many variables are at play in the process of actually doing the work. Since labor is the single biggest expense, controlling labor and informing the employees of job time goals are important parts of cost control and profit achievement.

ELEMENTS OF COST...

Direct costs such as payroll expenses are an easily calculable figure ... payroll hourly rates multiplied by realistic labor times required to do the work.

Indirect costs follow direct costs and are closely related to hourly payroll rates. Payroll taxes, benefits, depreciation on vehicles and equipment - in fact the entire cost lineup that supports labor activity in the field - can be lumped together to develop an hourly rate based on the time, by the hour, of actually using the support equipment or "expense group." The only shortcoming you may have is that to assign an indirect cost per hour, you'll have to estimate the total production hours predicted in the current season.

Overhead costs have a lesser impact and represent a far lower total expense group than direct or indirect expenses. The best you can hope for in terms of developing an hourly overhead rate to apply to total labor hours projected for any given job is to lump the entire year's overhead expense and estimate the total number of labor hours expected for the year. That overhead total is then divided by the hours to arrive at the overhead per hour rate. As the backlog of work increases, hourly overhead rates go down; and as the backlog drops, hourly overhead rates rise. This doesn't mean, however, that increases in overhead can be passed on to the customer for a company that doesn't have enough work to carry overhead at a conservative rate. Unreasonably high lucrative overhead expense schedules make a company far less competitive from a cost point of view.

Last but not least is the addition of profit to the cost group to arrive at a price to assign to the work. Sometimes a final price can be higher; sometimes it needs to be lower in view of current market and economic conditions. But here, too, you should arrive at an hourly profit add-on that justifies a reasonable profit.

Of course the higher the profit expectation, the lower the chance of being awarded the work. Profit after and beyond cost is the true "mystery" number that's locked up and somewhat a "secret" in

(continued on next page)

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The Cost of Doing Business *(continued from page 9)*

virtually every job bid submitted. Some contractors will use industry averages for profits. Others will charge what they think the "traffic will bear," while still others will test their price levels, including profits, by going with a higher and higher price for the same work until they find the price ceiling. Another view is to ask yourself what amount of money is being the boss worth? Is it \$50,000, \$100,000, \$200,000 a year? If you were to replace yourself with a hired manager what would it cost? What's it worth "being you?" Part of your compensation is salary as a management cost to the business, and the other part profit that you earn for invested capital at risk in plant and equipment.

Base Price - is the lowest price you must charge to cover your business costs, salary and profit.

Realistic Price - is higher than base price. Top of the quality range in your field but still competitive.

Premium Price - is even higher where you price for the client who wants and can afford the best.

Ag Secretary recognizes participation in the Plastic pesticide container recycling program

HARRISBURG – Agriculture Secretary Dennis C Wolff has commended Pennsylvania agricultural businesses participating in the Plastic Pesticide Container Recycling (PPCR) Program.

"Pennsylvania's PPCR Program is the first of its kind in the nation and a role model for other states to follow," said Wolff. "This year, I am happy to recognize those companies that have chosen to take a proactive environmental approach in disposing their plastic pesticide containers. I encourage all agricultural businesses to follow the example of these exceptional companies."

The Pennsylvania Department of Agriculture recognized the following businesses for their outstanding participation in the PPCR 2003 Program:

- **Top Overall Producer, All Categories — Brandt's Farm**
- **Public PPCR Partner, Distributor/Supplier Top Producer — Lesco Inc., Erie**
- **Public PPCR Partner, Commercial Applicator Top Producer — GROWMARK FS Inc., Leesport**

PPCR is available in Pennsylvania as a responsible disposal alternative to landfill, incineration or open burning. PPCR collects plastic pesticide containers from all categories of licensed pesticide applicators and custom application businesses. Clean containers may be taken to more than 50 PPCR Partner recycling sites.

For more information about PPCR, or to find the nearest PPCR recycling location, see <http://www.pested.psu.edu/pdaprog/ppcr>.

All you need to grow strong vigorous grass is a crack in the sidewalk.



NTEP signs agreement with USDA for \$32.4 million in turfgrass research

Washington, D.C. — The U.S. Department of Agriculture (USDA) recently signed a "Memorandum of Understanding" (MOU) with the National Turfgrass Evaluation Program (NTEP) to develop the National Turfgrass Research Initiative.

Under the \$32.4 million agreement, the USDA's Agricultural Research Service (ARS) will hire 72 turfgrass scientists and fund about \$10 million in university research projects. According to Kevin Morris, NTEP's executive director, Congress must still authorize the funding.

"This is the first attempt to provide the type of long-term research that has been key to the success of all other major crops," said ARS Acting Administrator Edward B. Knipling at the signing ceremony.

The new initiative will support research in six priority areas identified by the industry as its top research needs:

- improvement of water management
- germplasm collection and enhancement
- pest management
- improving turfgrass' role in the environment
- soil enhancement
- integrated turf management systems.

For more info, see "*ARS, Turfgrass Group Sign Research Pact*," USDA, June 3, 2004.

Turf Producers Summer Convention and Field Days Being Held in Harrisburg, PA

Turf Producers International (TPI) July 27-30 Summer Convention & Field Days is being held at the Hilton Hotel in Harrisburg, PA and Sporting Valley Turf Farms in Manheim, PA. Sporting Valley owner Robert Hummer, who founded the 400-acre farm in 1968, is a TPI member.

TPI's program features sod farm equipment demonstrations, a fundraising golf tournament, tours, exhibits, educational forums, and a dinner at the Antique Automobile Club of America Museum.

TPI Vice President Art Campbell described the excitement of planning this event: "We look forward to providing TPI members and non-members with extensive information about running a successful turf production business."

More than 500 attendees are expected to visit 70+ exhibitors who will present products, services and equipment demonstrations **July 29**. Many equipment manufacturers will unveil totally new or redesigned products during the Field Day.

Educational tours are planned to New Holland Production Research Facility, in New Holland, PA on **July 27** and Lesco Service Center in Lancaster County on **July 28**.

The 2005 TPI Midwinter Conference will be held in Cancun, Mexico, followed by TPI's Convention & Field Days in Park City, UT.

Complete conference details, registration and hotel reservation forms are available online at www.TurfGrassSod.org. Click on "Events," followed by "2004 Harrisburg, PA." Exhibitor or attendee information is available by contacting TPI at 800-405-8873 or 847-705-9898 or e-mail khunter@TurfGrassSod.org

Financial Planning: More Than Investing in the Stock Market

by Robert V. Burton, Smith Barney
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The financial planning process reaches far beyond the buying and selling of stocks and mutual funds. In fact, investment management represents only one of the many steps required to reach short- and long-term financial goals.

While there are no simple answers that will magically rebound depreciated securities, there are strategies to help you offset the pain of lower portfolio values. For starters, consider the following five planning strategies:

How to Save on Office Equipment

Many lawn care businesses, large and small, make mistakes when it comes to spending money on office furniture or equipment. You may be spending money unnecessarily, when you could be saving substantial amounts by taking a few simple steps.

Take inventory. Prior to making any purchases, you should determine what your needs are, take inventory of what you have on hand and determine whether your current equipment meets those needs. Often a current piece of equipment may suffice, but it just needs repair or minor upgrading.

Ask around. When shopping, you'll often ask a salesperson what piece of equipment, software, etc., would work best in your lawn care business. This can be a good starting point if you have no previous experience with the piece of equipment and need information. On the other hand, don't just take the salesperson's word. Ask employees who use or will be using the equipment what model they prefer and/or features they think are necessary.

Look to the future. Also consider what features you may need not only today but perhaps down the road as well. You don't want to spend money on equipment that may quickly become obsolete. On the other hand, don't fall for the "just a few more dollars" temptation by spending additional money on features and extras that you are not likely to use.

Consider the whole package. Price should not be your only focus. Service and support for the equipment should be considered an important factor.

Weigh leasing vs. buying. Buying and leasing office equipment each has its advantages. Buying is less expensive, but leasing generally includes a service agreement that is better than the one that comes with a purchase. Leasing may also be a better option for equipment that is based on fast-changing technology – it may be easier to upgrade. And leasing may be better for a large or cumbersome piece of equipment since you won't be saddled with the problem of disposing of the equipment when it becomes obsolete.

Whether you consider buying or leasing, ask several vendors for quotes and ask each the following: 1) what are the maintenance and performance statistics for the model you are considering (for example, copier "z" is in operating condition 96% of regular office hours); 2) what is the response time for a service call; and 3) what is the price to upgrade the equipment if a new model becomes available.

If you are thinking of leasing, also ask for a breakdown of the monthly lease cost. The monthly lease fee should allocate a portion for the equipment, another for service, etc. Pay close attention to the equipment portion and calculate what the list price is, based on this lease price. It may be higher than the average street price. You can then choose to purchase or ask for a lower monthly payment for the equipment portion of the lease.

- * Take advantage of your retirement plan. Are you eligible to contribute to a 401(k) or 403(b) through your employer? If so, try to contribute as much as you can. Contributions to these plans are made on a pre-tax basis. This translates to an immediate tax savings. Further, many of these plans offer matching employer contributions. The combination of tax savings and employer matching results in an immediate return on your money, regardless of market conditions.
- * Refinance your mortgage. Given today's low interest rates, refinancing your mortgage may be a smart move. In particular, if you have a variable mortgage, now may be a prime time to lock in a low fixed rate. Lower interest rates can reduce your monthly payments and, thus, increase your disposable income. This extra income can be used to meet day-to-day living expenses, especially if you are dependent on investment income or saving toward additional short- or long-term goals.
- * Get properly insured. If you recently married, had a child, or incurred sizable personal debt, consider revisiting your insurance coverage. The premature death or disability of a breadwinner can crumble even the most thorough financial plan. In addition to a death benefit, whole life policies offer a savings element called a cash value. Interest credited to your account grows tax-deferred each year. While many employers offer group life and disability insurance for reasonable premiums, individual policies can be designed to fit most budgets.
- * Save for your children's college education. There are many tax-advantaged vehicles available today to help you save for your children's college education. A Section 529 college savings plan is one of them. Section 529 plans offer tax-deferred growth and special estate-planning benefits. Regardless of whether your underlying investments are conservative or aggressive, the tax benefits of these plans make your money work harder than would comparable savings or investment accounts.
- * Prepare a will. A will is a legal document that specifies how your possessions will be distributed and who will manage your estate upon your death. If you die without a will, state laws determine how your estate will be divided between your surviving spouse, children, grandchildren, and/or others. Rarely, if ever, will state law match what you would have wished. In addition, if both parents die without a will designating who will be the guardian of a minor, the courts will make that decision for you. In light of these issues, even if you do not anticipate owing estate taxes, you should consider preparing a will.

Financial planning is more than investing in the stock market, it's investing in your- and your family's- future. With a little effort and the help of your tax and legal advisors and Financial Consultant, you can be well on your way to developing a total financial plan.

(Smith Barney does not provide tax or legal advice. Please consult your tax and/or legal advisor for such guidance.)

Neither the information nor any opinion expressed constitutes a solicitation for the purchase or sale of any security.

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NEWS

PA Road Rules

Since getting around in rural Pennsylvania requires hopping into a car or truck of some sort, here are some interesting rural transportation facts:

- There are more than 57,000 miles of highway in the state's predominately rural counties, which support 76.7 million vehicle-miles of travel daily – or 1,344 vehicles per mile of highway.
- Roughly 56% of rural roads are locally (township) owned and maintained; 38% are controlled by PENNDOT. Yet state roads handle 80% of rural miles traveled.
- Nearly 2,000 miles of rural roadways are either unpaved or made of dirt – and this does not include state forestry roads.
- Rural townships spend \$226.6 million on roadwork in 2000 (the last year for which statistics are available), nearly 10% of total municipal expenditures.
- A full 90% of rural residents aged 16 and older have a driver's license, compared to 83% in urban areas.
- The average rural driver travels more than 41 miles per day, nine miles farther than an urban driver.
- Of the 2.4 million vehicles registered in rural counties, 62% are passenger cars, 34% are trucks.
- Close to 41% of rural households had two or more vehicles, 19% had 3 or more. Only 8% had no vehicle at all.
- The average rural resident commutes 25 minutes to work; 80% travel alone.
- In 2000, 32,433 traffic-related accidents occurred in rural Pennsylvania – about 17.5 wrecks per 1,000 licensed drivers – resulting in 500 fatalities.

The positive power of thank-you notes

In today's world of instant, electronic communication, the traditional thank-you note is in serious danger of becoming extinct, and many question whether it really has a place in the business environment.

But more and more marketing experts are coming to see the power a simple thank-you note can evoke.

Bottom line – thank-you notes work. They make a sincere, positive impression. Recipients remember the gesture and reward you and your business by coming back again and again.

Give some real thought to sending thank-you notes to your customers. Consider these ideas:

- Send the note from a real person at your office not from the entire company. For example, don't say, "All of us at Bob's Lawn Care thank you for ..." Designate one individual to be the contact point and send the notes out over his/her signature. This personalizes the sentiment and provides an avenue for the customer to immediately connect with a real person.
- Mention specifics about the customer's business so the thank you does not appear like a generic note or form letter.
- Write the notes by hand if you have someone in the office with neat, legible handwriting. If not, type or print them but have someone print or write a brief P.S. on each note.
- Send the notes immediately. If you've just spoken with a customer on the phone or met with a customer for a specific reason, write a thank-you just as soon as possible. Refer back to something that occurred when you got together to emphasize your personal connection with that customer.

Internet Tricks and Great Places

TRICK #1 MAP MACHINE

<http://plasma.nationalgeographic.com/mapmachine/>

Some people hate maps - some love them. The folks from National Geographic have put together a site for you if you belong to the latter group. They call this service "Map Machine" and their Machine provides a variety of dynamic maps (e.g. street maps, topo maps, satellite imagery) as well as the tools needed to easily enjoy the wealth of information here.

Simply enter the country, city or Zip Code. And the Machine promptly provides you with demographic and geographic detail. Then zoom in for a closer look or out to visit all sorts of exotic places! Neat site!

TRICK #2 VISIT MAJOR CITIES BY EARTH CAM

www.earthcam.com/metrocams

Want to see what's going on right now in Times Square, Red Square, Trafalgar Square, Boston Common, Bourbon Street — or dozens of popular spots in over 30 cities in the United States — plus several overseas?

Through the magic of earth cams and the internet you can be a silent observer any time you want. While there you can click on the Earth Cam logo and choose from thousands of additional internet cams to hook up with.

Be careful though — this can be addictive!

GREAT PLACE #1 DAZZLE THEM WITH DATA

<http://www.re-date.com/>

Now you can find out your age to the nearest second! Or some interesting trivia like how many times you have blinked your eyes; how long your nails could grow; how far light has traveled and the total increase in the world's population during your lifetime — so far!

You can e-mail this unique report to a friend on their birthday, anniversary or other special day. That should get their attention!

GREAT PLACE #2 ONE CLICK TO GOOD HEALTH INFORMATION

<http://medlineplus.gov>

This great place brings you impartial health information from the National Institutes of Health and other trusted sources. Health professionals and consumers alike depend on this source for information that is authoritative and up to date.

This is a helpful and important place that has extensive information on over 650 diseases and conditions. There are also lists of hospitals and physicians, a medical encyclopedia and a medical dictionary, extensive information on prescription and nonprescription drugs, health information from the media, and links to thousands of clinical trials. This great government funded place is well worth a health bookmark.