

## Common turfgrass insecticides currently under FQPA review:

**Common name:** *acephate*

**Examples of trade name:** Orthene

**Class:** OP

**Pests commonly treated:** mole crickets, caterpillars, fire ants

**Common name:** *bendiocarb*

**Examples of trade name:** Turcam

**Class:** carbamate

**Pests commonly treated:** white grubs, chinch bugs

**Common name:** *carbaryl*

**Examples of trade name:** Sevin

**Class:** carbamate

**Pests commonly treated:** caterpillars, white grubs, chinch bugs

**Common name:** *ethoprop*

**Examples of trade name:** Mocap

**Class:** OP

**Pests commonly treated:** mole crickets

**Common name:** *isofenphos*

**Examples of trade name:** Oftanol

**Class:** OP

**Pests commonly treated:** white grubs, mole crickets, billbugs, chinch bugs

**Common name:** *trichlorfon*

**Examples of trade name:** Dylox

**Class:** OP

**Pests commonly treated:** white grubs

RICK BRANDENBURG, PH.D., TURFGRASS ENTOMOLOGIST,  
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### SOME BIORATIONAL CONTROL OPTIONS

BRAND	PROBLEM
Avid	leafminers, mites
Azatin	broad spectrum IGR
BioNeem	broad spectrum IGR
Conserve	caterpillars, larvae of leaf-feeding beetles and sawflies
DiTera	nematicide
Match	caterpillars
Merit	grubs, leaf miners, aphids, etc.
Neemazad	broad spectrum IGR
Mach2	IGR
Hexygon	miticide
insecticidal soaps horticultural oils	
Heritage	fungicide
BioTrek	biological fungicide
Spot Less	biological fungicide

# MULCH IN MINUTES



- **DAYS BECOME MINUTES . . .** with the easy, one person, remote controlled Express Blower application.
- **FINISH IN A FLASH . . .** with a production rate of 30 to 100 cubic yards per hour, large crews are a thing of the past.
- **SEASONED WITH TIME . . .** EB is the industry leader with over 5 decades of mulch, compost & soil application technology and experience.
- **SERVICE IN SECONDS . . .** with a customer support team that is available and ready to assist, 24 hours a day.



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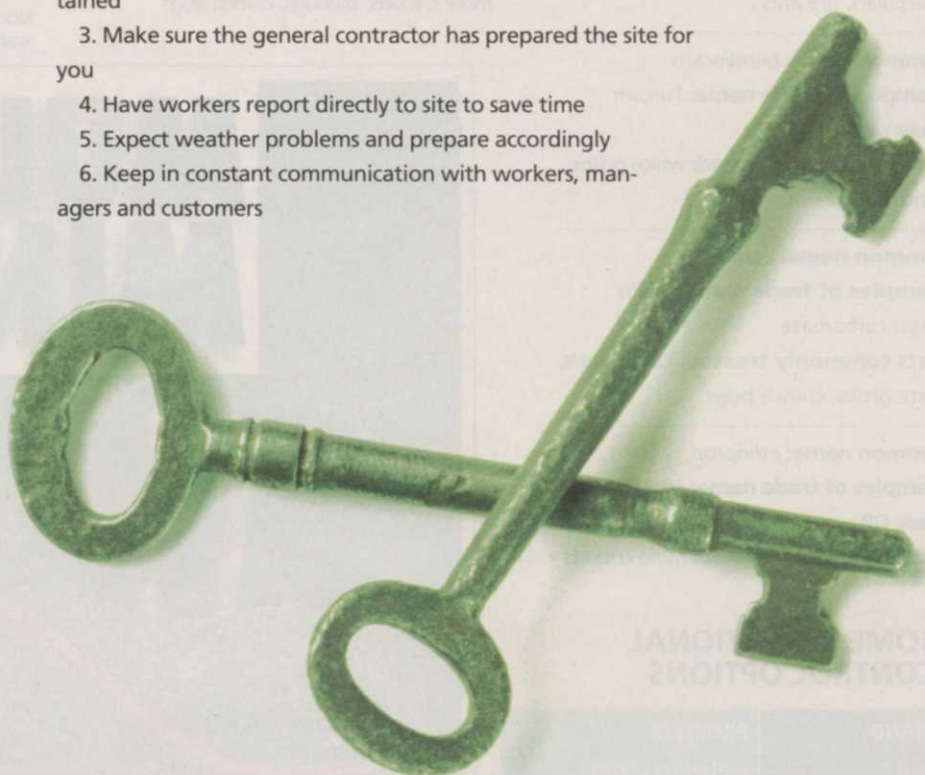
**Express Blower**

[www.expressblower.com](http://www.expressblower.com)

A division of Rexius Forest By-Products, Inc., Eugene, OR

## Keys to an efficient operation

1. Know the project inside and out before arriving at the site
2. Make sure all materials are ordered and equipment is obtained
3. Make sure the general contractor has prepared the site for you
4. Have workers report directly to site to save time
5. Expect weather problems and prepare accordingly
6. Keep in constant communication with workers, managers and customers



## 15 ways to build your operation

- Educate yourself; become a business person.
- Arrange for enough money to operate in a smooth manner.
- Price to make your services profitable, not just to get business.
- Have a plan for growth and stick to it. Extra business may sound good, but if you overextend yourself or lose money on the work, what is the gain?
- Sell only enough business you can reasonably handle.
- Learn to delegate; you can't do it all.
- Get involved with other landscape professionals.
- Have realistic expectations.
- Diversify your customer base.
- Focus on your key services.
- Understand and maintain good cash flow.
- Focus on people.
- Be 'in' the business; take it seriously.
- Always try to improve.
- Make sure key players are trustworthy.





# We Have The Answer. Now . . . What Is Your Question?

**W**e don't really have a crystal ball to look into, but we do have over fifty years of experience and research that you can rely on. Since 1945 Pennington has been growing, researching and perfecting our grass seed so that we've encountered just about every problem and situation imaginable that involves grass. Chances are that if you have a question about turf . . . we already have the answer. Our Turf Specialists are out there in the field as a resource for you - in order to help you do your job even better. So call on a Pennington Turf Specialist for the answer to all your turf problems and rely on Pennington Seed for the solution to all of your turf needs. When the right grass is essential, rely on Pennington Penkoted® seed for the quality you can trust.



## WHAT IS YOUR QUESTION?

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e-mail: [sportturf@penningtonseed.com](mailto:sportturf@penningtonseed.com)  
[www.penningtonseed.com](http://www.penningtonseed.com)



Circle No. 125 on Reader Inquiry Card



## Two sides of the "contractor" coin

We combed our research to develop two profiles of "typical" landscape managers. For comparison, we selected data of small organizations (revenues less than \$100,000) and larger ones (revenues over \$500,000) from our Penn survey. Both could describe themselves as "landscape contractors."

	Joe Lawn Service	Dan Green Guy
Company revenues	Less than \$100,000	More than \$500,000
Services offered (by rank)	Mowing Landscape construction Turf aeration	Landscape construction Mowing Turf fertilization
Customer mix	Residential – 67% Commercial – 25%	Residential – 55% Commercial – 41%
Years in operation	5 to 10 years	11 to 20 years
Location	Northeast or Midwest	South
Expect increased revenue for 2001?	Yes – 61%	Yes – 72%
Expect higher prices for 2001?	Yes – 69.2%	Yes – 71.4%
What are your top 3 challenges in business?	Growth management – 66.7% Labor availability – 54.8% Financing availability – 42.9%	Labor availability – 84.8% Developing field supervisors/ foremen – 78.8% Growth management – 51.5%
Hourly rate for employees	Best employee – \$12/hour New employee – \$8/hour	Best employee – \$18/hour New employee – \$8/hour
Number of employees	Full time – 4 Part time – 4	Full time – 30 Part time – 13
Employee retention programs used	Incentives/bonus – 74.1% Transportation – 37% Uniforms – 37% Retirement plan – 29.6%	Incentives/bonus – 66.7% Uniforms – 60% Retirement plan – 60% Promotions – 43.3%
Full time mechanic?	No	Yes
Have a Web site?	Yes – 9.3%	Yes – 33.3%
Highest level of education	High school graduate	Bachelor's degree
1999 personal income	\$61,889	\$95,174
Hours worked per week	55	64
Age	40	42
Years in industry	15	21



## On-site risks to avoid

Based on the observations of loss control specialists, we've listed three of the most common office site risk factors, along with advice on how to correct potential problems.

**1. Wet surfaces/floors.** Uneven surfaces, walks, holes and changes in level are major sources of "slip and fall" injuries, both indoors and outdoors. Wet areas made slick by frequent watering and algae growth are also a problem. To cut down on the possibility of these injuries,

- ▶ post warning signs in slippery areas,
- ▶ level uneven areas and fill in holes,
- ▶ fence areas that can't be leveled,
- ▶ treat walking surfaces to reduce algae growth, and
- ▶ routinely inspect walkways.

**2. Cluttered aisles and walkways.** Hoses left in walkways, as well as trees and shrubs that protrude, are tripping hazards. Bags of seed and/or fertilizer and storage pallets also present safety hazards for employees and others. To prevent these types of injuries, you should:

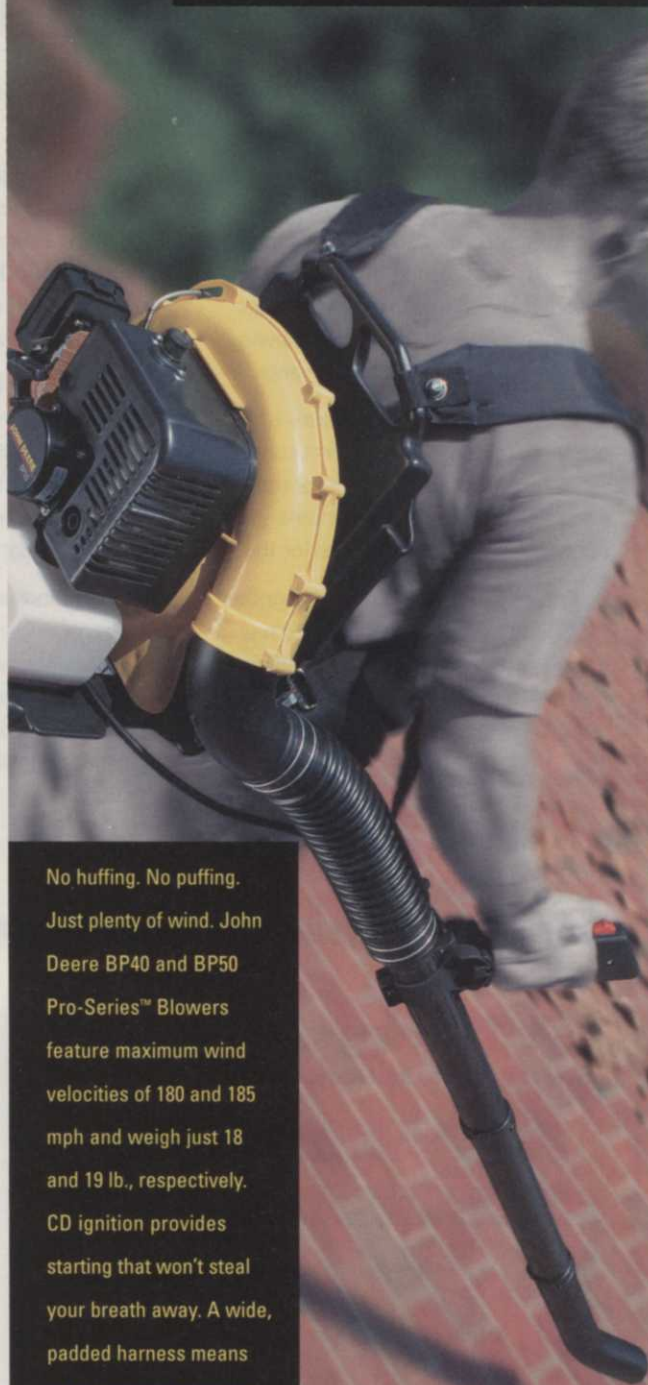
- ▶ check walkways on a daily basis to be sure they are clear of obstacles,
- ▶ be certain hanging items above walkways and doorways are secure and out of reach, and
- ▶ make sure tool storage areas are secure

**3. Poor electrical wiring.** Poor wiring is one of the biggest causes of fires. The most common electrical violations found are temporary wiring situations, excessive use of extension cords (including those made of "Romex" wiring) and improper splicing. To prevent the possibility of an electrical fire, heed the following advice:

- ▶ Have your electrical system inspected by a professional electrician
- ▶ Join wires by standard twist connectors. Wires that are twisted together can loosen and arc, which generates heat and more arcing, potentially causing a fire
- ▶ Check extension cords to ensure they can handle the load they're carrying
- ▶ Do not place extension cords under carpets: Cords can break down from constant foot traffic and can smolder undetected, potentially causing a large fire
- ▶ Never plug one extension cord into another
- ▶ Be certain that all joints are inside a junction or receptacle box
- ▶ Keep breaker and service boxes away from wet walls and protect them from leaks

John Deere Pro Series

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# 10 trends impacting the industry

Whether the economy continues to expand or slow, these 10 trends won't change. Here they are:

- 1. "Easy" growth** – It's not only fairly easy to grow an operation, it's sometimes a real challenge to limit growth. Survey respondents named landscape design/installation the fastest growing segment, followed by maintenance.
- 2. Uncertainty about the future** – Is the economy cooling? Will it affect construction, disposable income for consumers and commercial maintenance budgets? It's hard to prepare for this.
- 3. Consolidators are getting it together** – While the rate of consolidation has slowed, the consolidated companies are starting to standardize operations and bring on some real competition.
- 4. New, tougher competition** – New competitors enter this market constantly, making competition tough and squeezing prices, particularly in the

maintenance side of the business. This won't stop.

- 5. Demanding customers** – Blame it on instant messaging if you like, but today's residential and commercial customers are much more fussy and pushy about getting "extras" in a deal. And they want it now!
- 6. Ouch! Lack of labor hurts** – Labor shortages are a fact of life and there is no solution on the horizon. Some organizations make the most of the situation with good management, benefits and mechanization.
- 7. Regulations with bite** – Key issues challenge landscapers around the country, including: availability and use of pesticides; blower noise and engine exhausts; ozone-alert restrictions; control of irrigation installation; and water restrictions.

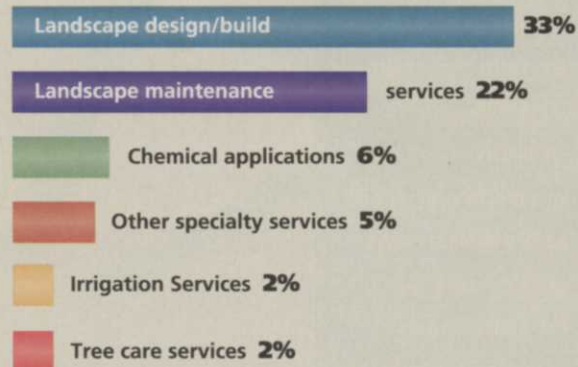
**8. Diversity in services and customers** – Innovative contractors and LCOs are expanding into new areas, franchising new services and seeking employees from new sources.

**9. Supply chain blues** – Manufacturers are merging at a dizzying rate, the ABT seed consolidation's fallout has yet to fall out and dealer/distributor chains continue to confuse and frustrate industry professionals. This will continue as long as mergers and acquisitions are profitable.

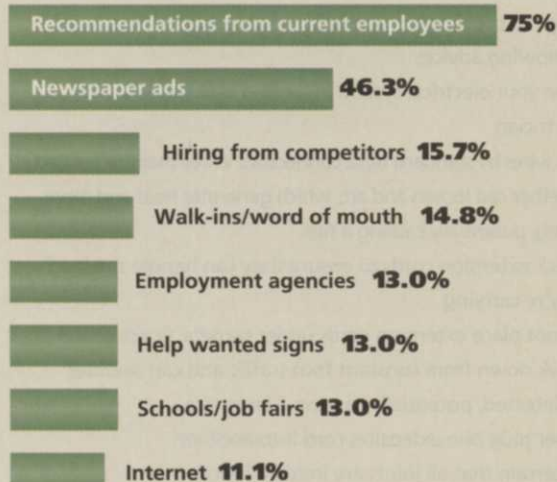
**10. High-tech goes "green"** – Laptops, palm devices, digital photography, new software and the Web continue to attract the attention of tech-savvy landscape managers. But how many are mechanizing for better productivity?

## Fastest growing service segments

(percent chosen as fastest growing business segment):



## How you recruit employees



# Want a new source for pest information?



[www.pestfacts.org](http://www.pestfacts.org)

Termites, cockroaches, rodents, even poison ivy and other nasty weeds. They're all pests, which means they can cause real problems that pose health and safety risks to children and adults. The good news is now you've got the Pest Facts Information Center at [www.pestfacts.org](http://www.pestfacts.org). It's a handy resource discussing the problems caused by pests, as well as the safe and responsible use of urban pesticides and related issues. So don't just sit there...log on.



## MAJOR FERTILIZER PRODUCTS (NITROGEN AVAILABILITY)

Type:

Soluble nitrogen	Coated soluble nitrogen	Natural organic nitrogen	Reacted (synthetic) organic nitrogen
	Sulfur coated urea (37 to 39% N)	Activated sewage sludge (6% N)	Ureaform (38% N)
Ammonium sulfate (21% N)	Polymer coated urea (38 to 44% N)	Digested sewage sludge (2% N)	Methyleneurea (40% N)
Urea (46% N)	Polymer coated sulfur coated urea (38 to 39% N)	Fish meal (10% N) Dried blood meal (12% N) Composted turkey manure (10% N)	Liquid methyleneurea (15 to 21% N) Isobutylidenediurea (31% N)

## CHARACTERISTICS OF NITROGEN

Quick-release sources	Coated slow-release sources	Reacted slow-release sources
Soluble in water	Slowly soluble in water	Controlled solubility in water
Can be used immediately by plants, which show rapid response	Can be used less frequently	Supplies N gradually
High potential for foliar burn	Reduced fertilizer losses from leaching	Little fertilizer losses from leaching
Require applications at low rates, frequent intervals to sustain growth	Produce more uniform growth response	Low salt index, little burning
Leach readily	Economically sound for general turf applications Susceptible to breaking/damage with handling	Performance not affected by coating







# IT'S EASY

## But no one has to know how easy ...

Sure, you had to cut around a lot of obstacles, but you did it in record time! And if the customer's turf looks better than ever? You did it all on a Grasshopper, and it's never been easier. The secret is in the equipment.

No one has to know how easy mowing is with Grasshopper's front-mounted deck, where you have the visibility to trim and mow. Or the advantages of **HydraSmooth™ steering** that eliminate all footwork. **By all means keep mum** about how you stay comfortably in control with the **Ultimate Operator Station**. You complete your job ahead of schedule and still feel renewed for the rest of the day.

If you're lucky maybe they won't notice all the comfortable legroom you enjoy while reaching the deck under shrubs and trees. **You'll be the envy of every other contractor if anyone finds out ...**

You can't even break a sweat with maintenance so accessible and easy.

So keep these secrets low-profile — much like the terrain-hugging Grasshopper design — and let your quality of work speak for itself.

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Ask for our free video on the Quick Converter Implement System, which transforms your air-cooled or liquid-cooled Grasshopper True ZT power unit into a compact turf renovation and snow removal system.

Snow removal & turf renovation systems, PTO-driven, for no-slip RPM.



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**COMPARISON OF MAJOR NITROGEN SOURCES**

Characteristics	Methyleneurea	Ureaform	IB**	SCU	Polymer Coated	Urea
Release characteristics	12-16 weeks	12-16 months	12-16 weeks	Varies	Varies	1-4 weeks
Hydrolysis releasable	*		*	*		*
Microbial releasable	*	*				
Not dependent on coating or particle size for release	*	*				*
Nonburning	*	*	*	☆☆	☆☆	
Low salt	*	*	*	*	*	
Minimal leaching/volatilization	*	*	*	*	*	
Temperature response	*	*			*	

\* Can cause mottling if coating is broken

\*\* IB is a registered trademark of Lebanon Seaboard Corp.

**U.S. MANUFACTURERS AND  
PRIMARY DISTRIBUTORS  
1998 CONSUMPTION (DOLLARS)**

*Estimated wholesale of the U.S. CRF market by product type, 1998*

Product	% share	\$ Dollars (Millions)
UF fertilizers	43	\$142.2
IBDU*	2	8.3
Sulfur coated & polymer coated	16	52.5
Polymer coated	22	74.4
Other slowly soluble products	5	16.4
Processes natural organic	12	40.6
Total	100	\$334.3

SOURCE: CONTROLLED RELEASE FERTILIZERS, JUNE 1999, AGINDUSTRIES RESEARCH & CONSULTING, INC., SAN MATEO, CA.