

David G. Mihailides is cheerful and confident. Then, like a gusty storm suddenly infringing on a calm and sunny day, Mihailides turns dejected and discouraged. “My life is a roller coaster,” the former superintendent says softly.

One minute, Mihailides is ecstatic about the golf course maintenance product he invented — a syringing hose system that’s stored underground near greens — because it will be used during this month’s U.S. Open at Bethpage State Park’s Black Course. But the next minute, Mihailides is worried that his invention, named the DGM System (for Direct underGround Maintenance and his initials), will fail. “I’m experiencing huge growing pains,” the Wyoming, R.I., resident says.

Mihailides is learning what it’s like to be an inventor in the industry. He has teamed with Reelcraft Industries, a Columbia City, Ind.-based hose reel producer, to manufacture and market his product. Mihailides quit his job as regional facilities manager for Bernard Golf and Asset Management last year to pursue his dream of being a successful inventor full-time. The fear of the unknown that comes with the territory can be unnerving, but Mihailides is hoping to hit pay dirt with his product and purchase that winter home in Tahiti.

Certified superintendent John Shaw is also an inventor of a golf course maintenance product called the Dew Draggin’, an item designed to drag dew on golf courses. But Shaw’s involvement in selling his product is like a drive through the pancake-flat roads of Kansas compared to Mihailides’ up-and-down trek.

Shaw signed a contract with Miltona (Minn.) Turf Products, which manufactures golf course tools and accessories, to market the Dew Draggin’ through its widely distributed catalog. But Shaw did not quit his job as superintendent of Rolling Hills CC in McMurray, Pa., because he views his job as an inventor as secondary to his job as a superintendent.

Like many superintendents, Mihailides and Shaw possess resourceful minds. They’re the kind of guys who lie awake at night dreaming up new gizmos to help them and their crews perform tasks quicker and easier. Mihailides and Shaw, however, are two of the few superinten-

dents who’ve invented products and are working with companies to market them.

Some superintendents dream of being inventors, making a lot of money and living in the spotlight. But Mihailides and Shaw will tell you that being an inventor isn’t as glamorous as you think. It has nothing to do with getting rich overnight and being a household name.

“It’s not as easy as everybody thinks,” Mihailides says. “You don’t just invent something and then collect mailbox money.”

How do you know when you’ve created a product that could benefit other superintendents? Often times, it’s through unsolicited feedback.

When superintendent Travis Jantzer first invented a tool to properly set sprinkler heads and valve boxes, he says most of his peers were wowed by the invention. When Jantzer, superintendent of Cedar Links GC in Medford, Ore., exhibited his Ground Zero Leveler under the new exhibitor’s pavilion at the GCSAA show two years ago, he was approached by Miltona, which wanted to feature the product in its catalog. “I just caught Miltona’s eye,” he says.

Shaw didn’t think about marketing the Dew Draggin’ until USGA agronomist Keith Happ visited his course last year and remarked how impressed he was with Shaw’s invention. Then Shaw sent photos of his invention to Miltona, which jumped on the idea.

Nobody knows for sure how a new product will perform in the industry. A superintendent who’s an inventor could hit the jackpot with the right ingredients — a distinctive product, perfect timing, great marketing and a little luck.

Road to riches?

Rick Tegtmeier didn’t expect to get rich when he invented the Divot Master, a portable mixing system that blends and colors divot mix and then distributes the material directly onto damaged turf areas. Tegtmeier knew his invention was targeted to a small audience.

“This business is too limited because there’s only about 16,000 customers,” says Tegtmeier, certified superintendent of Elmcrest CC in Cedar Rapids, Iowa, referring to the number of U.S. golf courses. “[To get rich], you have to invent something that has a broad base, or invent a dis-

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You and Your Bright Ideas



David G. Mihailides is ecstatic that his DGM System is installed at Bethpage State Park's Black Course, site of this month's U.S. Open.

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posable item that you're constantly reselling."

About five years ago, Tegtmeier teamed with Marion Mixers, an Iowa-based company that specializes in commercial mixers, to manufacture and market the Divot Master. Tegtmeier has sold about 30 Divot Masters, which retail for \$7,500, mostly to high-end courses.

Tegtmeier, who owns a patent on the tilting feature of the product, won't say how much money he invested in the Divot Master. "But what we put into it, we got out of it," he says, adding that patent costs drove up the expenses.

Not having a distribution network has hurt sales of the product, Tegtmeier says. "Marketing is the hard part unless you have a distribution network," he notes, adding that superintendents want to see an item like the Divot Master and try it out before they buy it.

Mihailides realizes distribution is integral to the DGM System's success. The reason he joined Reelcraft was to secure distributors to sell the product. Since April 2001, Mihailides has traveled the country and the world to sign up 30 distributors. Mihailides has also formed a company to be the exclusive distribu-

tor of the DGM System in New England.

"Sales are starting to come," he says. "We're doing aggressive marketing."

Mihailides says he's invested about \$50,000 of his own money in the DGM System, which he hasn't recouped. But he says his distributors are confident the product will take off in time.

"There's a big picture," Mihailides says. "When the product is up and running, I could have a complete life change. My income could skyrocket."

Jantzer, however, downplays the importance of having several distributors. He's content with having only Miltona distribute the Ground Zero Leveler. Nearly 400 have sold since early 2000, and Jantzer expects to make money on his invention when he pays off bills to obtain a patent. Jantzer also plans to market the Ground Zero Leveler to U.S. federal and state parks, which he says could spark more business.

In addition to Miltona, Jantzer discovered the industry grapevine is a wonderful tool for marketing. Superintendents tell each other about the Ground Zero Leveler.

"Everybody that has it likes it," Jantzer says. "The best advertising has been word of mouth."

Two roads traveled

Mihailides and Shaw have taken two contrasting roads to promote their products. Mihailides' invention is a major part of his life. Shaw's invention is important to him, but it's not driving his life. Mihailides is also marketing his product on a much larger scale and stands to make more money if it takes off.

It took weeks for Mihailides to build his prototype, and it took Shaw about 30 minutes to build his. Mihailides spent thousands on creating and promoting his product and pursuing a patent. Shaw has spent virtually nothing.

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Rick Tegtmeier has sold about 30 Divot Masters, mostly to high-end courses.



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Continued from page 32

Mihailides and his wife cried over his decision to quit his job as a superintendent to work for Reelcraft. He's on the road constantly and away from his family for up to seven days a trip. "I have a wife and kids at home, and I need to succeed for their sake," he says.

Shaw, who has a wife and two children, has little to do with the marketing of the Dew Draggin', which is promoted exclusively through Miltona's catalog. That's fine by him because he says he's too busy with his job and his family life.

Mihailides earns a salary from Reelcraft in addition to a royalty fee on each sale of the DGM System, which retails for about \$1,450. Shaw receives a percentage on each sale of the Dew Draggin', which retails for \$169. He received no payment up-front.

Shaw admits he would rather "sit back and let someone else do all the work and collect the royalty fees they're willing to give me."

Mihailides, however, is the driving force behind the marketing of his product. "We anticipate that sales this year will be OK," he says. "But we expect sales next year to be spectacular."

Mihailides didn't expect the life of an inventor to be such a pressure-packed adventure.

"I had no clue about what this could be," he says. "But you get to a point where there's no turning back. I'm not one to fail."

Shaw is hardly stressed over the success of the Dew Draggin'. About 20 of Shaw's products had sold in mid-April. "I'd like to see more sales, but it's nothing I'm concerned about," he says.

Tell Us About Your Contraption

Golfdom wants to know about your invention. If you've created a product that has helped your course's maintenance team perform a job better and/or more efficiently, we want to hear about it. Send your idea to Larry Aylward at larryward@advanstar.com.

Taking it to another level

A problem with being a superintendent who's an inventor is that your peers see your invention and think they can duplicate it, Tegtmeier says. So they try to build their own versions before they ever spend the money to purchase your product. "Superintendents are touchy, feely and see-if-I-can-built-it type of guys," Tegtmeier says.

At the GCSAA show in February, Shaw spent time at the Miltona booth talking about the Dew Draggin'. He says a lot of superintendents told him how they get rid of dew on their courses. "Everybody has their own way of doing it," Shaw says, admitting other superintendents could build their own versions of the Dew Draggin'.

Mihailides jokes he'll be the person "credited" with inventing the DGM System upon receiving a patent.

Pursuing a Patent

So you have an invention you think warrants a patent – that is, the exclusive commercial use and development of your invention. Beware. Obtaining a patent isn't cheap. There's a fee to apply for a patent, there's a fee to get the patent issued, there's a . . . You get the picture.

Check out these Web sites for more information on patents:

www.frompatenttoprofit.com

www.patent-faq.com

www.inventnet.com

www.lib.umich.edu/ummu/pattm/whatis

www.patentcribsheet.com

"Literally 1,000 superintendents have told me that at one time or another they thought about this exact same product," Mihailides says. "We're all inventors at one time or another."

Well, not really. The *real* inventors are guys like Mihailides, Shaw, Jantzer and Tegtmeier who have taken their innovations to another level.

Obtaining a patent on a product, which isn't cheap, attests to a superintendent's inventive skills and persistence. Jantzer expects his product to be patented later this year, but he's been waiting more than two years and will have spent around \$7,000 to obtain it.

"Seventy-five percent of superintendents are inventors in one way or another," Jantzer says. "Most must come up with new ways to get jobs done, but few take it this far."

Those few, however, must be prepared to take the bad with the good.

"There's a lot of failure," Tegtmeier says. "You must be willing to accept failure and know when to cut your losses."

Those few must also be realistic.

"There's the element of surprise," Mihailides says. "Someone could invent something similar to my product and sell it a lot cheaper. Then I'd be out of business tomorrow."

Those few must also have fun, whether their inventions are selling well or not.


"I've been on some of the nicest golf courses in the world where I've met some of the premier superintendents in the world," Mihailides says. "It has been exciting for me." ■

You can reach Aylward, the author of this story, at larryward@advanstar.com.



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OPtions

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That's why we offer you OPtions: a unique, integrated insect management program that includes three diverse product lines with much to offer. Each is from a different chemical class. Each is successful and respected. Two provide you with virtually the same spectrum, control performance, plant safety, and cost effectiveness you get with organophosphates.

Our OPtions program also includes experts to guide you. We'll work closely with you to develop a customized program that considers your target pests, application timing, control performance, formulation, and the need for resistance management.

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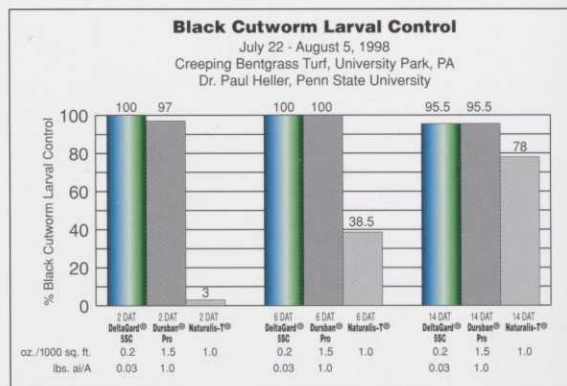
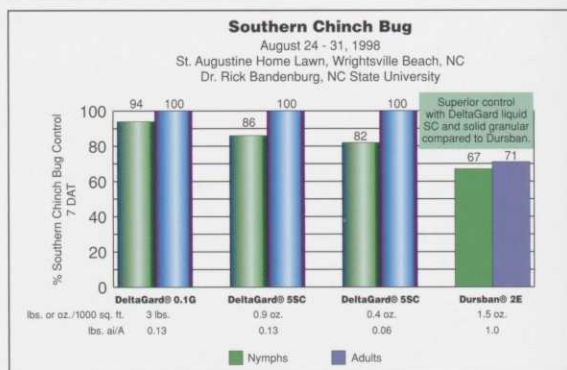
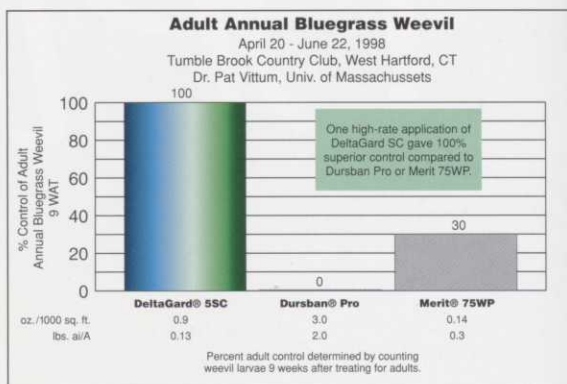
DeltaGard is an all-purpose insecticide offering the attractive combination of broad-spectrum efficacy at very low doses — some of the lowest doses on the planet, in fact.

DeltaGard is effective against more than 50 insect species, including ants, fleas, ticks, chinch bugs, mole crickets, billbugs, and bluegrass weevils. DeltaGard's broad spectrum efficacy is matched by power: DeltaGard provides quick knockdown, high mortality, and a long residual. Yet, its toxicity is extremely specific to insects.

As an organophosphate replacement, DeltaGard is up to the challenge. Several studies have shown it to perform as well as, or better than, Dursban. (See charts on Bluegrass Weevil, Chinch Bug and Cutworm control.) And DeltaGard insecticides carry wide use labels, enhancing the flexibility of the products.

DeltaGard has other benefits, too: There's little odor, it provides for flexible application, and it's economical to use. It combines readily with many fertilizers, fungicides, and herbicides, too, making it a good tankmix partner. DeltaGard has been repeatedly tested and proven.

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Sevin contains the active ingredient carbaryl and provides exceptionally broad spectrum control of more than 130 insect pests on turf, trees, and ornamentals, pests that include aphids, beetles, chinch bugs, cutworms, mole crickets, white grubs, and weevils.

Sevin®

Its broad spectrum efficacy has earned Sevin a loyal following and a reputation as one of the best all-purpose insecticides available.

Sevin stacks up well against organophosphates, too, performing better than Dursban against pests like billbugs, cutworms, June beetles, and sod webworms. (See charts.)

Sevin works both through contact and through ingestion. The combined effect is quick knockdown and thorough control. Residual activity keeps Sevin effective for 7 to 14 days.

Diverse formulations allow Sevin to be applied with virtually any type of application equipment. It's economical, and it's compatible in



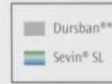
tankmixes with a broad range of products, including herbicides, fungicides, adjuvants, and other insecticides.

Finally, 35 years of use have not diminished Sevin's effectiveness in the field. Insects rarely show resistance to this dependable compound.

If you've never tried Sevin, perhaps you should.



Billbug Larva Control

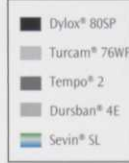


Percent Control

*various formulations

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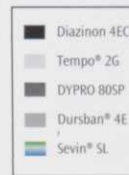
Sod Webworm Control



Percent Control

43TCD900301

Green June Beetle Grub Control



Percent Control

44TCD900301

Cutworm Control



Percent Control

45TCD900301

Chinch Bug Control



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Introducing: More choices for mole cricket and fire ant control with fipronil

Two pests have long been the leading insect problems for superintendents in the South — mole crickets and fire ants. Now, one family of insecticides brings you the ultimate solutions for these problems with low-dose fipronil formulations — Chipco® Choice™, Chipco TopChoice™, and Chipco FireStar™.



In just a few years, Chipco Choice has revolutionized mole cricket control on golf courses with superior effectiveness and season-long residual at very low doses. So low, in fact, that just one pound of fipronil is equal in efficacy to 200 pounds of an organophosphate active ingredient. Launched in 1996 as a slit-applied product, Chipco Choice provides control of mole crickets for six months or more with just one slit application. Now, the new label adds new sites, pests and the flexibility of broadcast application. When broadcast-applied for fire ants, a single application of Chipco Choice provides up to 52 weeks of control plus control of mole crickets (4 months), fleas & ticks (1 month), and nuisance ants (3 months). The broadcast application requires a spreader capable of applying 12.5 lbs. product/acre.



New Chipco TopChoice provides one-step fire ant control for up to a full year. Formulated specifically for broadcast application with a standard spreader (87 lbs. product/ acre), TopChoice is designed to be very different from other fire ant treatments: No multi-step processes. No time-consuming mound treatments. Just one easy, broadcast application is all it takes to get up to 95 percent control in 4-6 weeks, and eliminate the threat of fire ants for up to a year. Plus, an application of Chipco TopChoice for fire ants will also control mole crickets, fleas, ticks, and nuisance ants.



New Chipco FireStar delivers fipronil in a unique, easy-to-use granular bait that's highly attractive to fire ants. The result is effective control with just 0.00015% active ingredient, the lowest concentration in any fire ant treatment. FireStar makes an excellent partner for Chipco Choice or TopChoice — use it to treat landscape beds, embankments and sand trap perimeters, the bases of trees, and other hard-to-reach places fire ants favor.

More than exceptional products

We hope you'll consider these exceptional products as you consider what to do beyond organophosphates. Please also keep in mind the company behind them: Chipco Professional Products is an excellent resource for professionals like you who might have questions about the changing state of pest control, or concerns about what course of action to take next.

To start exploring your options, please contact your Chipco representative today, call us at 201-307-9700, or visit us online at www.aventischipco.com

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THE GADGET MEN

David G. Mihailides and the DGM System

David G. Mihailides calls himself a “widgey guy.”

“I’ve always had mechanical ability and an inventive mind,” he says. “It comes from my mother’s genes.”

Mihailides is the inventor of the DGM System, or the Direct under-Ground Maintenance syringing system for greens (DGM are also his initials.) The DGM System debuted in 2001 and is marketed by Columbia City, Ind.-based Reelcraft Industries.

A former superintendent, Mihailides is now Reelcraft’s golf and irrigation division representative. He invented the DGM System to help superintendents and their course employees deal with the “hose dragging blues” when hand-watering.

“Dragging hose, carrying hose, handling hose or whatever description you give is a tedious part of an already busy day in the life of grounds-crew members,” Mihailides says. “I’m not one to carry a hose around. To me, it looks unprofessional.”

The DGM System features a high-quality hose that’s spring retractable onto an industrial-grade reel. The unit is encased in a high-quality polyethylene encasement. The hose has a working pres-

sure rating of 250 psi and a burst pressure rating of 1,000 psi.

A superintendent or course worker simply pulls the desired length of hose from the 6-inch diameter opening, opens the valve on the hose and hand-waters a green. When he’s finished, he closes the valve and releases the ratcheting mechanism, which allows the spring to retract the hose.

“No more dragging hoses,” Mihailides exclaims.

John Shaw and the Dew Draggin’

He was short on help. That’s what led John Shaw, certified superintendent of Rolling Hills CC in McMurray, Pa., to invent the Dew Draggin’.

About five years ago on a Saturday morning, Shaw was looking for two employees to drag the dew off the fairways when he was superintendent at



John Shaw

Duquesne GC in Pittsburgh. “But I didn’t have two people to send out and do it,” Shaw says.

The job had to be done, however. So Shaw’s brain went to work. He assembled a contraption — made from pipe and rope — to hook to his utility vehicle and drag the fairways. The gadget took about 30 minutes to construct. “The bottom line was I needed to get the dew off the fairways, and there was nobody to help me,” he says.

The first-ever Dew Draggin’ worked “damned good,” Shaw says.

Shaw didn’t think about marketing the product until USGA agronomist Keith Happ visited his Rolling Hills last year and remarked how impressed he was with Shaw’s invention. Shaw sent photos of his invention to Miltona (Minn.) Turf Products, which manufactures golf course tools and accessories. Miltona liked the idea and is now manufacturing and marketing Shaw’s product.

“It’s a cool feeling to know that somebody else is using this product,” Shaw says.

Travis Jantzer and the Ground Zero Leveler

“It’s virtually impossible to set an irrigation head perfectly every time,” Travis Jantzer says. “No matter how much ex-

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David G. Mihailides



It only takes one person to use the Dew Draggin’.

The Gadget Men

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perience you have, you can only get it perfect 75 percent of the time.”

That's why Jantzer, superintendent of Cedar Links GC in Medford, Ore., invented the Ground Zero Leveler, billed as “the common-sense solution for set-



Travis Jantzer's invention eliminates resetting of irrigation heads and boxes.

ting sprinkler heads and valve boxes properly the first time.”

The Ground Zero Leveler, marketed through Miltona Turf Products, eliminates resetting of heads and boxes. It also negates mower damage to improperly set heads and boxes. Jantzer expects the product to be patented this year.

Jantzer created a company for his inventions called Jantzer Innovations. His latest invention is a clutch system for walk-behind greens mowers, which he hopes to debut at the next GCSAA show in Atlanta.

Rick Tegtmeier and the Divot Master

Rick Tegtmeier, certified superintendent of Elmcrest CC in Cedar Rapids, Iowa, says he's one of the many superintendents



Rick Tegtmeier

who looks for a way for employees to do jobs better and faster.

About five years ago, Tegtmeier teamed with an Iowa company to invent the Divot Master, a portable mixing system that blends and colors divot mix and then distributes the material directly onto damaged turf areas. A leveling device is used to fill divots and smooth excess. Tegtmeier says the Divot Master is especially productive on driving ranges and par 3 tees.

Tegtmeier owns a patent on the tilting mechanism of the product. He also says he has more ideas on the table that could end up as new inventions to be manufactured by Golf Course Systems, the business he formed with the mixing company to market the Divot Master.

Tegtmeier says the golf course maintenance industry is a breeding ground for new ideas.

“This business invents the inventor, he says. “You're driven to do jobs better, faster and easier.” ■

Wanted: Inventors

Miltona (Minn.) Turf Products, which manufactures golf course tools and accessories and markets them through a catalog and a Web site, is looking for a few (more) good inventors.

In the back of the company's product catalog, there's a note to superintendents that reads: “Many of the tools and products displayed in this catalog have been developed after brainstorming with superintendents like yourself. If you would like to discuss how your idea could become a marketable product, please contact us.”

Miltona's offer keeps with the company's tradition. Dan Halvorson, owner of the company, points out that Robert Shields, a former golf course owner and superintendent in Minnesota, started Miltona about 13 years ago. Halvorson purchased Miltona from Shields in 2000.

About four superintendents have teamed with Miltona to market their inventions in the past few years. Halvorson says he hears from a few superintendents monthly about possible new products. “We

tell some of them to send prototypes, and we take a look at them,” Halvorson says, adding that the company is willing to sign nondisclosure agreements with superintendents who pitch their products.

If you're lucky to enough to score an agreement with Miltona to manufacture and market your invention, you're likely to receive a royalty payment on product sales. The payment percentage depends on the product and how much it sells.

“We have to delineate between something you're going to sell millions of, something you're going to sell thousands of and something you're going to sell hundreds of,” Halvorson says. “If it's something we sell millions of, the royalty equates to a small percentage. If it's something we sell hundreds of and it has a decent margin, then you'll receive a larger percentage.”

Halvorson will also discuss pursuing a patent for your invention. He warns it's a costly and time-intensive process. The product's distinction and potential sales will warrant whether a patent should be pursued, he says.

Halvorson believes superintendents are a good source of information for new products because of the dynamics of their profession. “They're resourceful people,” Halvorson says, adding that superintendents are skilled in irrigation and pesticide management, agronomy and other roles.

If you have what you think is a solid idea for a new product, you have to push it — hard. Persistence will impress, says Bill Martin, national sales manager for Reelcraft Industries, a Columbia City, Ind.-based hose reel producer.

Martin says he was impressed with Dave G. Mihailides' persistence to manufacture and market Mihailides' idea for an underground hose syringing system. Mihailides didn't just contact Reelcraft one time to discuss his product. And each time Mihailides called, Martin and others explored his idea more closely.

“We began to realize it was something we could effectively manufacture,” Martin says. “More importantly, there was a market for it”

In the end, Reelcraft opted to produce Mihailides' idea, called the DGM System. “Dave's persistence paid off,” Martin says.

— Larry Aylward, Editor