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FRONT COVER

When does the woodchuck do his thing? The MAGCS members enjoy seeing their golf courses covered in snow...but maybe not this long.

Photo Credit: Luke Cella

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The Midwest Association of Golf Course Superintendents (MAGCS), founded December 24, 1926, is a professional organization whose goals include preservation and dissemination of scientific and practical knowledge pertaining to golf turf maintenance. We endeavor to increase efficiency and economic performance while improving and enhancing the individual and collective prestige of the members.

The MAGCS member is also an environmental steward. We strive to uphold and enhance our surroundings by promoting flora and fauna in every facet in a manner that is beneficial to the general public now and in the future.

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Class C Advisor

In February, the MAGCS Class C committee sponsors a Winter Workshop geared toward the Assistant Superintendent. On those cold winter days, the content has been aimed at what we as assistants can and should be doing to improve as professionals with the ultimate goal of becoming superintendents. While many of us have the necessary skill sets to manage our greens and fairways, that isn't necessarily all that is needed in order to make the jump from the little class "C" member to the big "SM" that we all strive for. We have had consultants and head hunters come in and let us know about some innovative ways to get our resumes to the top of the pile and to get that interview. We have had them tell us how to handle the interview process and get that job. The elder statesmen of Class C have taken those messages and turned them into interviews and jobs. If you had scanned the room perhaps two years ago, you would have seen people that have since gotten superintendent positions locally. They were in that room listening to Jim McLaughlin or Bruce Williams. They went on to apply the skills that were offered.

While we as a committee do believe that this is important, this year we are going to try a little bit different route. One that we hope will be beneficial not only for assistants looking for a superintendent position, but also for those that have already attained them.

In the morning we are going to have two staff members from GCSAA. Penny Mitchell is the GCSAA Senior Manager of Certification. She will be directing her talk on certification toward how assistants can maximize their education in order to be best prepared for Class A status and, eventually, the coveted CGCS title. She has comprehensive knowledge on the certification process, so this is a golden opportunity for all members who have questions on CGCS. Coming with Penny from Lawrence, Kansas, will be Lyne Tumlinson, who is Director of Career Services at GCSAA. She will speak about Employer Issues and Career Track. This will include not only trends, but tips on how we can stay on the leading edge of those trends. Again, this is a topic that is beneficial not only to Class C members, but to anyone in MAGCS who is looking for some guidance.

After lunch, there will be a panel discussion with an open question and answer session. The emphasis will be on career tracks that may offer viable options for people looking to move forward in a flooded job market. Those on the panel will include

Eddie Sagan, who is the Facilities and Systems Manager at McDonalds Corporation; Travis Stephen, General Manager of the Rockford Riverhawks baseball team; and Eric Adkins, who is Superintendent of Grounds at Toyota Park, which is the home to the Chicago Fire soccer team. They will offer perspectives on a business very similar to ours that is seldom researched as a job option for those of us coming out of college. They should be able to open our eyes to a world of turf and grounds management that can serve as serious career options. I think we can all

agree that in a career where there are 300+ applicants for one open position, options are a good thing. So be sure to bring your questions for this esteemed group.

I believe that the Class C committee has put together a great morning session that will serve as a unique opportunity for all classes of MAGCS. That,

coupled with the panel discussion, should ensure a great day of learning that will open our eyes to the options available both inside and outside of our industry. On behalf of the Class C committee, I want to thank Leann Cooper at GCSAA for helping line up the morning session and our own Sharon Riesenbeck for all her work on the afternoon roundtable. I hope that many of our members, not just Assistants, will come out and take advantage of this great opportunity. See you February 17 at the Golf House. **-OC**



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Capping Oil Prices



Over the past four years, fuel prices have been increasing. This rise has caused stress to individuals and various other fuel dependents. To ease this burden, people began driving less, car pooling, selling/trading in SUVs, and limiting fuel consumption to an absolute minimum.

As the overall demand for fuel decreased, the supply increased. This low demand and high supply effect should have lowered the price of fuel; however, the cost continued to rise. In fact, in just one year, the cost of crude oil doubled from \$69/barrel to about \$150/barrel.

On July 17, 2008, fuel prices reached an all-time high at \$4.11/gallon. A future filled with reasonable gas prices seemed doubtful. The public made obvious sacrifices and lowered fuel demand, but their efforts had no positive effect. In a country that strongly depends on fuel, it seemed that every advantage was being taken of American society.

Surprisingly, the \$4/gallon gas hike didn't last long, and by August 2008, prices were back around \$3/gallon. From August to September 2008, the prices fluctuated in the \$3/gallon range, but once October came, the prices appeared to be lowering.

Fuel prices dropped from an average of \$4.11/gallon in July to an average of \$2.92/gallon in October. And throughout November, prices continued to drop—\$2.75, \$2.50, \$2.22, \$2.10, \$1.99! People hadn't seen fuel prices this low since early 2005! But the decline didn't stop there. In December 2008, fuel prices continued to drop and reached an average price of \$1.64/gallon.

How did this happen? Prices like \$1.64/gallon hadn't been seen since 2003. How could fuel cost in 2009 be the same as in 2003?

On January 11, the television news magazine *60 Minutes* aired an interesting segment, aimed at answering those unexplained questions, titled "Did Speculation Fuel Oil Price

Swings?" I have excerpted some particularly interesting pieces of that report below. For the complete transcript, or to view the video segment go to: <http://www.cbsnews.com/stories/2009/01/08/60minutes/main4707770.shtml>

To understand fuel prices, one must first understand crude oil trading. For many years, crude oil has been bought and sold on the Commodities Futures Market. At the New York Mercantile Exchange, it's traded alongside cotton and coffee, copper, and steel by brokers who buy and sell contracts to deliver those goods at a certain price in the future.

It was created so that farmers could gauge what their unharvested crops would be worth months in advance, so that factories could lock in the best price for raw materials, and airlines could manage their fuel costs, but more than a year ago, the markets started behaving erratically. When oil doubled to \$147/barrel, Dan Gilligan, President of Petroleum Marketers Association (PMCA), set out to make sure the Commodities Futures Market was an honest market.

Gilligan represents over 8,000 retail and wholesaler suppliers ranging from home heating to gas stations owners.

Gilligan's suppliers were being blamed for gouging prices, but they were also paying high product amounts. Gilligan explained that the problem was in the commodities markets.

"Approximately 60 to 70 percent of the oil contracts in the futures markets are now held by speculative entities. Not by companies that need oil, not by the airlines, not by the oil companies. But by investors that are looking to make

(continued on next page)



money from their speculative positions," Gilligan explained.

Gilligan went on to say. "All they do is buy the paper, and hope that they can sell it for more than they paid for it. Before they have to take delivery."

"They're trying to make money on the market for oil?" Steve Kroft (60 Minutes reporter) asked.

"Absolutely," Gilligan replied. "On the volatility that exists in the market. They make it going up and down."

Hedge fund manager, Michael Masters, tracks the flow of investments into and out of financial markets, and he noticed huge amounts of money leaving stocks for commodities and oil futures, most of it going into index funds, betting the price of oil was going to go up.

Asked who was buying this "paper oil," Masters told Kroft, "The California pension fund. Harvard Endowment. Lots of large institutional investors. And, by the way, other investors, hedge funds, Wall Street trading desks were following right behind them, putting money - sovereign wealth funds were putting money in the futures markets as well. So you had all these investors putting money in the futures markets. And that was driving the price up."

In a five year period, Masters said the amount of money institutional investors, hedge funds, and the big Wall Street banks had placed in the commodities markets went from \$13 billion to \$300 billion.

Michael Greenberger, a former director of trading for the U.S. Commodity Futures Trading Commission (the federal agency that oversees oil futures) says there were no supply disruptions that could have justified such a big increase.

"Did China and India suddenly have gigantic needs for new oil products in a single day? No. Everybody agrees supply-demand could not drive the price up \$25, which was a record increase in the price of oil. The price of oil went from somewhere in the 60s to \$147 in less than a year. And we were being told, on that run-up, 'It's supply-demand, supply-demand, supply-demand,'" Greenberger said.

Masters believes the investor demand for commodities, and oil futures in particular, was created on Wall Street by hedge funds and the big Wall Street investment banks like Morgan Stanley, Goldman Sachs, Barclays, and J.P. Morgan, who made billions investing hundreds of billions of dollars



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of their clients' money. Masters says if the markets working properly, price of oil should've been decreasing. The only thing that makes sense is that investor demand increased.

"So you had the largest price increase in history during a time when actual demand was going down and actual supply was going up during the same period. However, the only thing that makes sense that lifted the price was investor demand," Masters said.

For the most part, Dan Gilligan agrees with Masters. Kroft went on to ask Gilligan, "Are you saying that companies like Goldman Sachs and Morgan Stanley and Barclays have as much to do with the price of oil going up as Exxon? Or...Shell?"

"The oil bubble began to deflate early last fall when Congress threatened new regulations and federal agencies announced they were beginning major investigations."

"Yes," Gilligan said. "I tease people sometimes that, you know, people say, 'Well, who's the largest oil company in America?' And they'll always say, 'Well, Exxon Mobil or Chevron, or BP.' But I'll say, 'No. Morgan Stanley.'"

It's impossible to tell exactly who was buying and selling all those oil contracts because most of the trading is now conducted in secret, with no public scrutiny or government oversight. Over time, the big Wall Street banks were allowed to buy and sell as many oil contracts as they wanted for their clients, circumventing regulations intended to limit speculation.

Who was responsible for deregulating the oil future market?" Kroft asked Michael Greenberger. "You'd have to say Enron," he replied. "This was something they desperately wanted, and they got."

"When Enron failed, we learned that Enron, and its conspirators who used their trading engine, were able to drive the price of electricity up, some say, by as much as 300% on the West Coast," he added.

"Is the same thing going on right now in the oil business?" Kroft asked.

"Every Enron trader, who knew how to do these manipulations, became the most valuable employee on Wall Street," Greenberger said.

The Energy Information Administration webpage provides some basics on crude oil <http://www.eia.doe.gov/kids/energyfacts/sources/non-renewable/oil.html#Howused>

Oil was formed from the remains of animals and plants that lived millions of years ago in a marine (water) environment before the dinosaurs. Over the years, the remains were covered by layers of mud. Heat and pressure from these layers helped the remains turn into what today we call crude oil.

Crude oil is...usually found in underground areas called reservoirs. Scientists and engineers explore a chosen area by studying rock samples from the earth... if the site seems promising, drilling begins.

After crude oil is extracted, it is sent to a refinery...where different parts of the crude oil are separated into useable petroleum products...A 42-U.S. gallon barrel of crude oil provides slightly more than 44 gallons of petroleum products. This processing gain is similar to what happens to popcorn, it gets bigger after it is popped.

One barrel of crude oil, when refined, produces about 20 gallons of finished motor gasoline, and 7 gallons of diesel, as well as other petroleum products. Most of the petroleum products are used to produce energy... Other products made from petroleum include: ink, crayons, bubble gum, dishwashing liquids, deodorant, eyeglasses, records, tires, ammonia, and heart valves.

But those valuable employees may now be looking for work. The oil bubble began to deflate early last fall when Congress threatened new regulations and federal agencies announced they were beginning major investigations. It finally popped with the bankruptcy of Lehman Brothers and the near collapse of AIG, who were both heavily invested in the oil markets. With hedge funds and investment houses facing margin calls, the speculators headed for the exits.

"From July 15th until the end of November, roughly \$70 billion came out of commodities futures from these index funds," Masters explained. "In fact, gasoline demand went down by roughly five percent over that same period of time. Yet the price of crude oil dropped more than \$100 a barrel. It dropped 75 percent."

Asked how he explains that, Masters said, "By looking at investors, that's the only way you can explain it."



When dealing with the economy or politics or any other debatable subject matter, it seems like everyone has their own opinion. Type "Why have gas prices dropped" into any Internet search engine and prepare to read theory after theory

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after theory—each providing an answer to that broad question. And here's the tricky part—who's right and who's wrong? Here are three things to do: stay involved, research and most importantly, listen. Don't settle on that first news story or explanation from "John" at work.

Over the past few years, the American public has united and managed to drastically reduce their fuel intake. The message was clear, "These gas prices are ridiculous." And although it took some time and sacrifice, that message finally seemed to have gotten delivered. **-OC**

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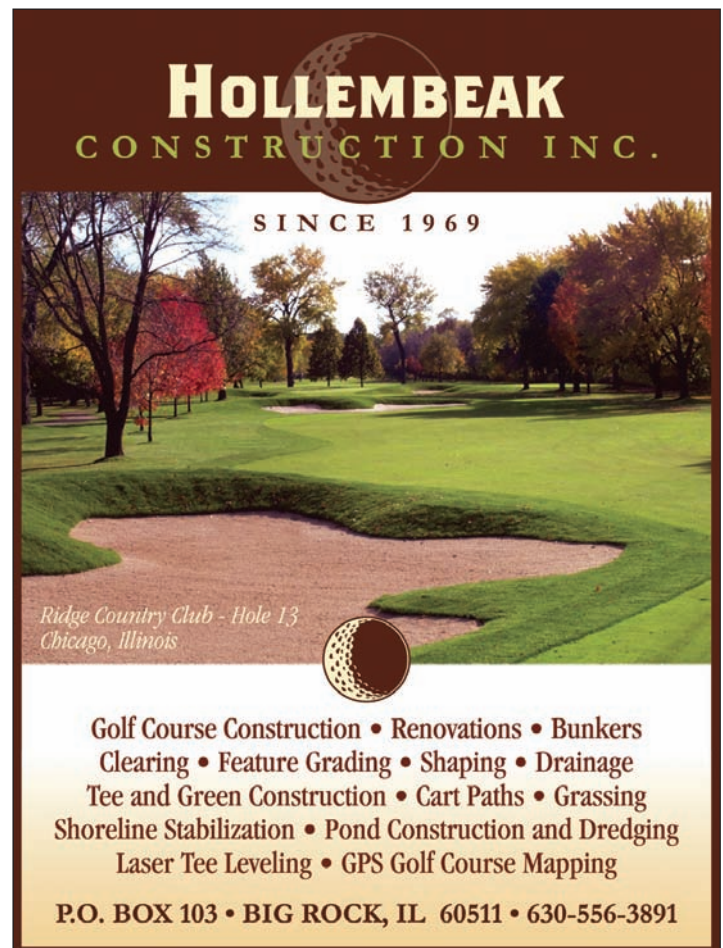
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FEATURE II

David Marquardt, *Dirt-n-Turf Consulting*



Economical Agronomical Thinking – Part I

Budgets rule! Unquestionably this is the case. The amount of money in our budget will, and often does, impact the products and methods we use to maintain our turf. So, when our budgets get cut...as most have....does this mean that quality of play must be sacrificed as well? Well of course each club/course is unique, and in some cases, where budgets are already tight, the quality of turf will be greatly influenced by further cuts. However, in most clubs this does not have to be the case.

Oil prices have fallen and gas is half of what it was a year ago. Fertilizers are still expensive but well off their highs. While these two factors will help to ease some of our budget woes, lower-than-expected play levels may well consume these savings. So what's the superintendent to do? Well, based on client visits, innovative and creative superintendents have found a host of ways to change their practices, improve playing conditions, and still meet budget restrictions. Aerification is but one of those ways.

Many hours of discussion take place around the types, tools, and methods used for aerification. One shortcut on greens that actually improves the quality of the profile, as well as saves money, is to re-incorporate sand based cores. This method, while old school, blends new sand with the sand used in construction and topdressing and actually builds a more homogenous profile. Now obviously there are exceptions and we don't mean to

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Improving the quality of the profile by pulling plugs on a sand based green.

suggest otherwise. For instance in some cases we have found that the construction material is too coarse to leave on the surface and must be harvested. In other cases, where extreme surface stratification and organic matter have developed, then core removal may be necessary.

We are also fully aware that anytime we use a sand that is either finer or courser than the material used in construction, we form layers. By blending cores as we fill fall and spring aerification holes, we also blend the sands that have been used over time and lessen the degree of stratification. If you have properly maintained organic matter, then give this labor-saving technique a try. I think you will be amazed at how much labor and sand you will save while improving your profile and your playing conditions.

Tees and fairways are their own animals. Many superintendents are still core-aerifying when thatch control is not a problem. As we all know, this is a labor intensive and a mechanically intensive method of compaction relief, as well as a great inconvenience to those who pay our bills. Further, because of the cost and player inconvenience, opportunities to maintain compaction relief are few. An alternative method of compaction relief is **slicer aerification**. This is a method that not only relieves compaction, but can be accomplished with no real disruption to the player's experience or revenue stream. These tools require no PTO or large, expensive tractor to operate and can be used repeatedly throughout the spring and fall. Ground driven, the time of operation may be 12 hours or less to aerify the typical 18-hole facility. Not only are the cost savings obvious, the results are more impressive than coring. Slices

within the turf canopy will allow water to move down and off the turf surface, which minimizes future compaction and aids in the ability to re-wet troublesome areas.

If thatch control is a concern, then take some time to first consider the cause. If your maintenance nitrogen levels are appropriate, then it may be time to employ a biological approach. Superintendents around Chicago are beginning to find that simple, short-chain sugars, such as corn syrup or molasses, will aid and increase the rate of organic matter digestion. (More on this may be found on the internet as well as in the article "Chemical thatch control in a creeping bentgrass putting green," found in CGM, Oct. 96). I would further add that the same biological approach to greens organic matter control has also proven to be highly successful.

As far as brands go, I have the most experience with the AerWay and Bannerman lines but am sure that there are more available. Among the objections I have heard to slicing technologies is the purpling (drying) of the slit in the soil. Two thoughts: First of all, as with any form of cultural practice, the operator must make sure that conditions are appropriate and, depending on the weather, may need to irrigate in order to lessen the drying that takes place. Secondly, slicer tines also provide a fracture of the soil profile that is a **long term correction, not just a short term fix** such as coring or solid tining. With this in mind, the more the equipment is used, the better the profile becomes, and the less that slice appearance is noticed. The photos show a late May aerification of a bentgrass fairway that raised no objection from players or groomers. After two to three years of



Reincorporating sand based cores into the sand profile after topdressing.