

# Fuel For Thought

The Newsletter of Virent Energy Systems, Incorporated

Spring 2011

## Market Demands for Renewable Chemicals

While Virent continues its commercialization plans for world-class fuels, it is difficult to downplay the economic appeal of the BioForming platform for chemical manufacturing. As we examine leading peer companies in the biofuels space, it is common to learn all of them have allowed for the commercialization of non-fuel intermediate products for the near term.

While other biofuels companies have developed capabilities to produce one or two chemical products, Virent stands alone in its breadth of molecules. In my opinion, Virent is the best-positioned advanced biofuel company



**Lee Edwards, CEO**

to replace crude oil dependence based on the full range of gasoline, distillates and renewable chemicals available from our technology. Because our patented catalytic process is feedstock agnostic, and tunable per customer requirements,

we also can uniquely manufacture a vast array of high-demand, renewable chemicals. I believe this will lead to accessing higher margins with a faster deployment timescale relative to a 'fuel only' approach.

We invite our shareholders to accompany us on the truly rewarding journey to gasoline, jet fuel and diesel, while at the same time, experience the financial security which comes from meeting today's renewable needs in the fields of plastics, apparel and the many other sectors committed to replacing fossil fuels in the materials they produce.

## Virent's Biogasoline Takes the Checkered Flag

This past October, Virent's biogasoline was blended into fuel supplied to Scuderia Ferrari by Shell for the last three races of the 2010 Formula One championship. Shell worked closely with Scuderia Ferrari all season to develop the fuel, leveraging FIA regulations and continuing to optimize fuel performance. During 2010, the fuel supplied to Scuderia Ferrari contained a biofuel component made from cellulosic ethanol, an advanced biofuel made from straw. For the remaining three races of the season, the Shell fuel contained ethanol and Virent's biogasoline. Scuderia Ferrari drivers Fernando Alonso and Felipe Massa claimed first and third place finishes respectively in the October 24<sup>th</sup> running of the inaugural Korean Grand Prix, held in Yeongam, South Korea. That victory catapulted Fernando Alonso to a second place in the overall Formula One Championship.



### Did you know?

Around 3,000 people visit the [Virent.com](http://Virent.com) website each month!

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# Fuel For Thought



## Virent Using Pine Tree Sugars in Fuel Development

It's no secret that Virent has been producing its renewable hydrocarbon products using diverse feedstocks such as sugar cane, sugar beets, switchgrass, bagasse and corn stover. But in early 2011, Virent added a promising new biomass to its arsenal: pine bark chips.

On January 4th, Virent and [HCL CleanTech](#) of Durham, NC announced they had been jointly awarded a \$900,000 grant from [BIRD Energy](#) to convert pine tree sugars into hydrocarbon fuel products. Using pine bark chips as the lignocellulosic biomass, HCL CleanTech is converting the biomass into refined sugars using their patented process chemistry.

The pine tree sugars produced at HCL CleanTech's demonstration plant will be sent to Virent in Madison for conversion into biofuels and biochemicals in the spring.

Read the [press release](#) about this exciting relationship!



### Did you Know?

Virent's gasoline product has an octane rating of

**102**

## Virent Welcomes 100<sup>th</sup> Employee

In an economy where most companies are experiencing unfortunate reductions in workforce, Virent continues to grow, adding its 100<sup>th</sup> employee in late January, Pilot Plant Operator Kiley Djupstrom.

Virent has experienced healthy growth over the past four years, with 72 employees in 2007, 83 employees in 2008, 91 employees in 2009, and 100 employees at the close of 2010. The projected employee count at the close of 2011 is 115 employees.

Virent's continued growth is testament to the viability of its science and technology, and marketplace receptivity to alternative product development. Welcome Kiley, and thanks to all Virent employees that make a difference every day!

## Virent on the Road

In mid-April, Virent CEO Lee Edwards will be speaking at the [Advanced Biofuels Leadership Conference](#) in Washington, DC, on a panel called *New Technology to Maximize the Economic and Environmental Sustainability of Biofuels*.

Lee will be addressing Virent's innovative conversion technology that goes beyond ethanol's blend-wall with our premium drop-in fuels. He will also address the potential for sound government policy, and how it can play a role in accelerating technology deployment.

Dr. Randy Cortright, Virent's founder and CTO also takes to the skies, speaking on a panel for the [World Biofuels 2011 FOCUS Abengoa Forum](#) taking place in Seville, Spain in mid-May. In June, he will head to Boston, MA where he will be delivering a fuel-sector presentation during the [Clean Technology 2011 Conference & Expo](#).



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## Human Resources Harnessing Technology

Next to the Virent.com homepage, the most popular destination on the Virent.com website is the [Virent Careers](#) page.

In 2010, Human Resources received thousands of applications through this portion of our website, which gives great details about open positions, the benefits we offer our employees, and some good background about what it's like to live in Madison.

The Careers pages also gives prospective employees a good feel for our culture by providing a comprehensive explanation of our company values: Honesty & Openness, Innovation, Commitment, Sense of Urgency and Teamwork.

Virent is planning a website redesign in 2011, and we look forward to sharing more details in our next issue.

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## McBee Strategic Augmenting DC Efforts

Virent has chosen [McBee Strategic](#) as a consultant to guide our government relations efforts. With expertise in the aviation, defense and aerospace, energy, security and transportation sectors, McBee Strategic is uniquely suited to assist Virent as we develop powerful and effective lobbying and advocacy strategies.

In a kickoff meeting between the two organizations on Friday, February 18<sup>th</sup>, Virent received valuable updates and insight on current and pending legislation. The company also provided significant information concerning agriculture, environmental, energy and food security issues which are impacting the bioproducts industry and message.

Meetings will continue resulting in short and long terms plan to impact governmental policy.

**MCBEE**  
STRATEGIC



*Did you know?*

Unlike ethanol,  
Virent's fuels can use  
existing engines,  
distribution pipelines  
and fuel pumps.

## New Focus on Marketing and Government Relations

On December 13<sup>th</sup> Virent welcomed its first full-time marketing employee, Kelly Morgan. Kelly joins Virent following recent employment with CUNA, Wisconsin Manufacturers & Commerce and Virchow Krause - Baker Tilly. She has begun crafting a marketing communications plan with the goal of unifying messaging and prioritizing audiences. She has also addressed our printing processes, centralized press release functions through the use of a global print and online database, and is developing plans for a complete redesign of our website ([www.Virent.com](http://www.Virent.com)).

With Kelly's arrival, Marketing Director Mary Blanchard is now fully-devoted to Virent's government relations efforts. Mary and Kelly will be working together to further define audiences in Washington, DC, creating necessary resources and tools to deliver powerful messaging to lawmakers, agencies and non-governmental organizations.



**Kelly Morgan**

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## What Matters to Us

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### Virent Values

#### *Honesty and Openness*

- Tell the truth—first to yourself, and then to others
- Say the tough stuff
- Interact openly and directly
- Listen and consider before responding
- Practice “real time” communications

#### *Innovation*

- Seek out and share higher risk solutions
- Find and eliminate root causes of problems
- Evaluate ideas with curiosity and open-mindedness
- Stay on the leading edge of your field
- Make decisions with data not assumptions

#### *Commitment*

- Make commitments with care and live up to them
- Persist in the face of obstacles

#### *Sense of Urgency*

- Take the initiative. NOW!
- Compete against time
- Focus effort on high impact tasks, not activity

#### *Teamwork*

- Adopt a “can do” attitude
- Treat team members with respect
- Fail as a Team, Succeed as a Team
- Celebrate the win!



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Incorporated

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[Virent.com](http://Virent.com)