



Expanding Biofuel Production:  
An Investor's Perspective  
June 24, 2009

---

---

---

---

---

---

---

### PrairieGold Overview

The basics

- We manage funds (Limited Partnerships) that makes investments in private companies
- Take ownership (equity) positions in companies
  - Sit on board; help companies grow
  - Have special control rights for key decisions
- Make money on sale or IPO of private company



2

June 24, 2009

---

---

---

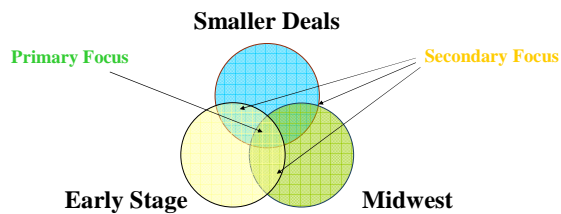
---

---

---

---

### PrairieGold Investment Strategy



Less efficient market segments = less competition for deals = quality deals with better deal terms = best opportunity for true "venture" returns



3

June 24, 2009

---

---

---

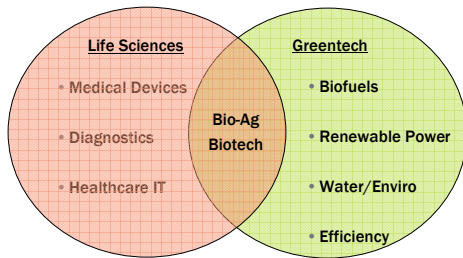
---

---

---

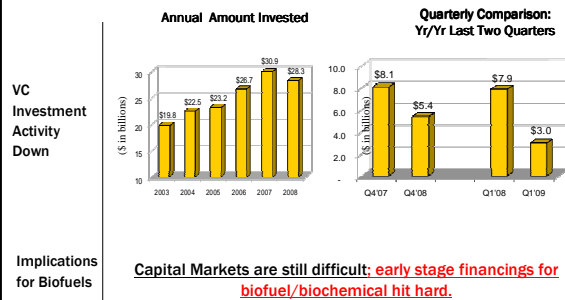
---

## Our Industry Interests



4

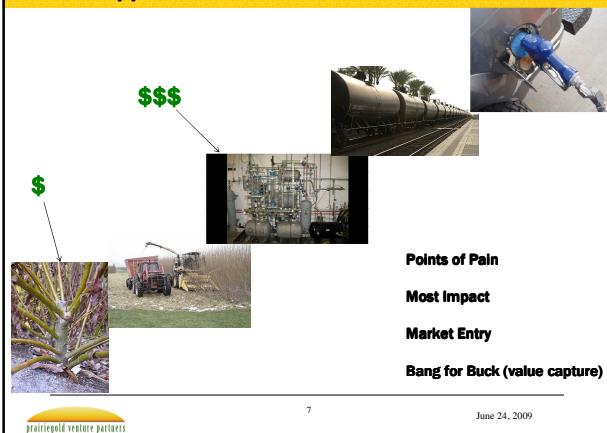
## Review of 2008, Q1 2009 Venture Capital Market



## The Greentech Landscape

- Greentech Investment Thesis
- Massive markets with three big problems: climate, security and supply/demand imbalances
    - Economic downturn has lessened supply/demand concerns
    - Worldwide gov't support for climate solutions increasing
- What We're Looking For
- Supply-side: Solutions that can be competitive with fossil fuels without subsidies
  - Demand-side: Solutions that hit big pain points, offer short-term paybacks
- Greentech Ecosystem Evolving
- Best and brightest entrepreneurs are seriously engaged; new ideas, concepts and approaches rapidly emerging (lots of noise in the system)
  - The Greentech capital formation system still emerging; many new players are getting interested

## Venture Opportunities in Biomass Value Chain




---

---

---

---

---

---

---

---

## Company Overview

**ZeaChem**

- |                       |   |
|-----------------------|---|
| <b>Summary</b>        | <ul style="list-style-type: none"> <li>• Third-Generation Biorefining company based in Denver, CO</li> <li>• ZeaChem's patented process offers highest yield, lowest cost and smallest carbon footprint of any known biorefining process</li> </ul> |
| <b>Team</b>           | <ul style="list-style-type: none"> <li>• Experienced team with petrochemical (Koch), fermentation (Coors and Natureworks), and chemical (Dow) backgrounds</li> </ul>  |
| <b>Company Status</b> | <ul style="list-style-type: none"> <li>• Company has raised over \$40M Series B round; PrairieGold co-led with Globespan Capital, Valero (nation's largest refiner)</li> <li>• Building a 10/bdt day demonstration plant in Boardman, OR</li> </ul> |

---

---

---

---

---

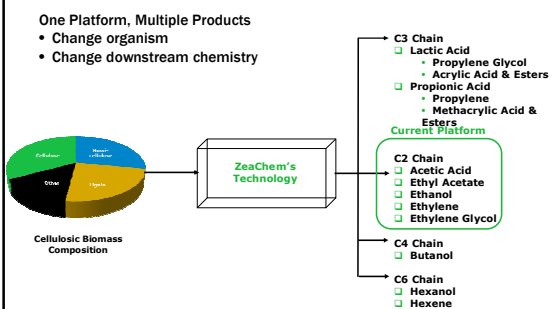
---

---

---

## Product Portfolio

**ZeaChem**




---

---

---

---

---

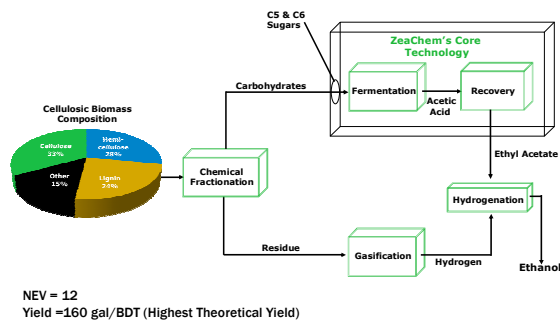
---

---

---

## ZeaChem Process

ZeaChem



NEV = 12  
Yield = 160 gal/BDT (Highest Theoretical Yield)

10 prairiegold venture partners

June 24, 2009

## ZeaChem's Process Advantages

ZeaChem

### Yield Advantage Key

- Significant yield advantage
  - 135 gal/BDT vs 90 gal/BDT for other cellulosic processes
  - Creates economic, strategic and environmental advantage

### Other Important Advantages

- Lowest CO<sub>2</sub> net impact
  - 8x lower CO<sub>2</sub> emissions than traditional corn ethanol, 11x lower than gasoline
- Flexible product platform
  - Ability to produce bio-based fuels and chemicals

### Manageable Technical Risk

- Uses proven equipment and natural bugs
  - Naturally occurring acetogen produces no CO<sub>2</sub> emissions during fermentation
  - Converts all carbohydrates
  - Uses proven processes in new way, building block approach

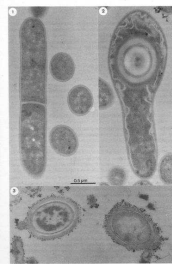


Figure 1.1: This series of three micrographs illustrates the structure of the naturally occurring acetogen bacteria used in the ZeaChem process.

prairiegold venture partners

11

June 24, 2009

## Feedstock Strategy

ZeaChem

- ZeaChem process is feedstock agnostic
  - Hardwood, softwood, switchgrass, corn stover, etc.
- Contract with GreenWood Resources
  - Supply hybrid poplar for first commercial plant; looking to "mosaic farms"
- Efficient harvesting
  - Harvest every 3 years, replant every 5 harvests
  - Reduced tillage = low CO<sub>2</sub>
- Low cost
  - Lowest cost per BDT/acre/year
- "Store on the stump," eliminates storage concerns



prairiegold venture partners

12

June 24, 2009

## What Investors Want from Policymakers

- A price on carbon
- Stability, Stability, Stability (RFS, ILUC, etc.)
- Set goals but let the market pick technologies and products (non-fuel biochemicals)
- Use gov't resources for solving problems only gov't can solve



13

June 24, 2009



Questions

[batcheller@pgvp.com](mailto:batcheller@pgvp.com)