TO: Iowa Newspaper Association Member Editors
FROM: Iowa Department of Economic Development
DATE: January 29, 2008
RE: "Iowa Innovators"

The "Iowa Innovators" series is a joint project of the Iowa Newspaper Association and the Iowa Department of Economic Development (IDED). The series is an outgrowth of an idea from member INA publishers. "Iowa Innovators" articles describe initiatives that Iowa communities have used to improve their ability to attract business and industry and demonstrate community innovation. The articles also describe Iowa companies on the leading edge of technology, business expansion, workforce development and recycling.

It is hoped that these article ideas will be published locally and spark community and business initiatives statewide. If you have community or business success stories to share, contact IDED, 200 East Grand Ave., Des Moines, IA 50309, 800.245.IOWA (4692) or e-mail: business@iowalifechanging.com.

The following is a list of companies and communities featured in this round of "Iowa Innovators" articles:

1. In the eastern **Iowa community of Clinton, Telles**—a joint venture between Archer Daniels Midland and Metabolix—is constructing a state-of-the-art bioplastics plant that will produce Mirel™, a bioplastic made from corn, sugar cane, switchgrass or other renewable resources. Biopolymer plastics are currently a tiny fraction of the estimated $250 billion annual global plastics industry, but products made from biopolymers are growing as consumers demand more environmentally friendly products. "This is a tremendous project for the Clinton area, with more than 1,500 construction workers working on site and high-quality, permanent jobs at its completion," says Steve Ames, president of the Clinton Regional Development Corporation. "As more products and applications are found for Mirel, eastern Iowa has a tremendous opportunity to grow along with the plant."

2. With the acquisition of PLA Supply Company, **Clarinda-based Naturally Iowa** hopes to distinguish itself from other dairy processors and producers by offering the highest quality organic and all-natural dairy products packaged in environmentally friendly, sustainable containers derived from corn. PLA or polylactic acid is a polymer which utilizes renewable resources such as corn, sugar cane or switchgrass to create a compostable material. "Bio-polymer plastic is probably a better description since the compostable plastic can be made from a host of renewable resources," says Dick Jensen, Naturally Iowa operations manager. "We are the first and only dairy in the world that is certified to produce PLA containers that completely biodegrade in 60 to 100 days when placed in a landfill."

3. In the central Iowa community of Grimes, Linweld, Inc., is building a highly automated, state-of-the-art air separation plant to produce oxygen, nitrogen and argon for industrial purposes. And according to company officials, the expansion project could spur more industrial and manufacturing investment and job growth within the state. The $50-million expansion will allow the company to better serve its medical, manufacturing and industrial customers throughout the 12 Midwest and Western states in which Linweld currently operates. The project, the first air separation facility of its kind in the state, was awarded High Quality Jobs Creation (HQJC) tax benefits from the Iowa Department of Economic Development.

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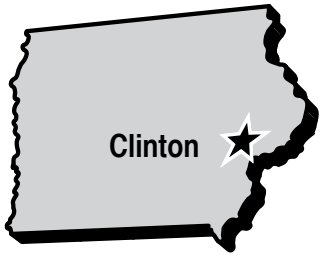
Growing a New Plastic

In the 1967 movie "The Graduate," Mr. McGuire gives Benjamin—the character played by Dustin Hoffman—one-word career advice: "Plastics."

Forty years later, that one-word advice could be "Bioplastics."

Use of bioplastics—plastics made from corn, sugar cane, switchgrass or other renewable resources—is currently a tiny fraction of the estimated $250 billion annual global plastics industry, but products made from biopolymers are growing as consumers demand more environmentally friendly products.

And Iowa is strategically placed to reap the benefits of the growing use of naturally biodegradable bioplastics made from renewable resources such as corn.



One example can be found in the eastern Iowa community of Clinton where Telles—a joint venture between Archer Daniels Midland and Metabolix—is constructing a state-of-the-art plant adjacent to an ADM corn wet mill complex.

Using starch from the corn grind, the facility uses a natural fermentation process that converts sugars into the renewable plastic Telles markets as Mirel™. Commercial production is expected to begin operations in late 2008.

The facility will have an annual production capacity of 110 million pounds—just a blip in an annual industry capacity of 350 billion pounds—but Steve Ames, president of the Clinton Regional Development Corporation, says the community and the environment is benefitting from the project.

"This is a tremendous project for the Clinton area, with more than 1,500 construction workers working on site and high-quality, permanent jobs at its completion," says Ames. "As more products and applications are found for Mirel, eastern Iowa has a tremendous opportunity to grow along with the plant."

When the Telles facility is operational, more than 110 full-time jobs will be created.

The more than $300-million facility's construction was leveraged by tax benefits from the Iowa Department of Economic Development-administered Enterprise Zone program.

"Every product made from Mirel is one less product made from petroleum, and one step forward on the path toward energy security and environmental improvement," says Patricia Woertz, ADM president and CEO.

"Mirel is an important step in response to some of our most pressing challenges, including reducing reliance on foreign oil."

U.S. plastics manufacturing consumes approximately two million barrels of oil a day—or 10 percent of the nation's overall consumption of petroleum.

Mirel has been shown to be suitable for almost all plastics manufacturing operations, including injection molding, extrusion coating, cast film and sheet and thermoforming.

In fact, consumers may have already handled Mirel plastic during the past holiday shopping season without knowing it.

Gift cards from all of Target's 1,600 U.S. stores were made from Mirel. The company even offered shoppers an unusual message about its gift cards at some stores, advising "Just make sure you spend them first," because of the gift card's ability to biodegrade.

ADM's Woertz, noting the company employs 800 people at its Clinton operation, says the community was a natural choice for the new facility.

"As large and as global as we are, when it came time to decide where to build this facility, we knew right where to come," she says. "We've always been able to count on Clinton for its hard work and dedication."

As consumers become more environmentally conscious, the movement toward sustainable resources, and socially responsible, environmentally friendly corporate practices is sure to grow.

And with each application and product made with bioplastics from Clinton's Mirel plant, the future becomes a little brighter for the environment and for Iowa's economy.

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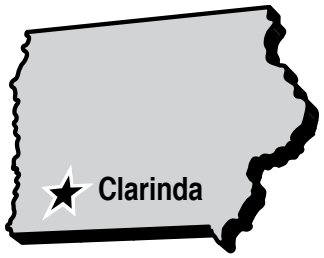
Milking the Cows, Growing the Bottles

With the acquisition of PLA Supply Company, Naturally Iowa hopes to distinguish itself from other dairy processors and producers by offering the highest quality organic and all-natural dairy products packaged in environmentally friendly, sustainable containers derived from corn.

Naturally Iowa is a two-year-old dairy located in the southwest Iowa community of Clarinda. It was founded by two southwest Iowa dairymen—William Horner and Steve Williams—along with other organic dairy farmers in the region.

Following four years of extensive planning, the dairy began operations in 2005 in a state-of-the-art 30,000-square-foot processing facility.



Start up of the dairy and renovation of its processing facility, that now employs 20 Iowans, was leveraged by a $75,000 investment from the Iowa Department of Economic Development's Value-Added Agricultural Products and Processes Financial Assistance Program.

According to Dick Jensen, Naturally Iowa operations manager, the dairy processes and produces organic and all-natural dairy products.

"We wanted to offer small dairies in our area a way to add value to their commodity," says Jensen. "We believe that as demand grows for our fluid milk, ice cream and drinkable yogurt, it will spur development of the dairy industry here in southwest Iowa."

With its purchase of PLA Supply, the dairy is positioned to be a leader in sustainable resource management with its biodegradable dairy containers.

PLA or polylactic acid is a polymer which utilizes renewable resources such as corn, sugar cane or switchgrass to create a compostable material.

"Bio-polymer plastic is probably a better description since the compostable plastic can be made from a host of renewable resources," says Jensen.

Naturally Iowa purchased the assets from Natureworks, a Dow-Cargill joint venture.

"We are the first and only dairy in the world that is certified to produce PLA containers that completely biodegrade in 60 to 100 days when placed in a landfill," says Jensen.

Facing a host of fierce national and regional competitors that include Dannon, Land O' Lakes, Wells' Dairy, Roberts, Deans' Foods, Kemps and AE, Naturally Iowa has made changes to its business plan it believes will allow the company to acheive sustainable growth well into the future.

First, the dairy recently completed a reverse merger to become a publicly traded entity.

"We believe the time is right and it is in the best interest of Naturally Iowa to enter the public marketplace," says Horner, Naturally Iowa's CEO. "With the continued growth of the organic and all-natural dairy in the marketplace, we feel the advantages of being a publicly traded company allow us to achieve sustainable growth for the future."

A recent study agrees with Horner's assessment. According to the Organic Trade Association, using data gathered from 1997 to 2005, demand for organic and natural dairy products has grown at an average rate of 21.46 percent annually in the United States.

The dairy has also signed a distribution agreement with Organic Logistics, LLC, to coordinate logistics for its ice cream and drinkable yogurt products.

"This is a major milestone for us," says Horner. "This gives Naturally Iowa the ability to deliver our products to organic, natural, and national grocery chains across the United States.

"This logistics agreement allows us to pursue a very aggressive sales and marketing strategy."

Building on the growth of the organic and natural-foods movement, two-year-old Naturally Iowa is growing its business in the ultra competitve food industry.

It also hopes to distinguish itself from the competition by packaging its products in a container made from 100 percent renewable resources.

"By packaging our products in an environmentally friendly, sustainable container, we are positioned to be a leader in sustainable resource management," says Horner.

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No Hot Air in Linweld Expansion

In the central Iowa community of Grimes, Linweld, Inc., is building a highly automated, state-of-the-art air separation plant to produce oxygen, nitrogen and argon for industrial purposes.

And according to company officials, the expansion project could spur more industrial and manufacturing investment and job growth within the state.

The $50-million expansion will allow the company to better serve its medical, manufacturing and industrial customers throughout the 12 Midwest and Western states in which Linweld currently operates.

The project, the first air separation facility of its kind in the state, was awarded High Quality Jobs Creation (HQJC) tax benefits from the Iowa Department of Economic Development (IDED).

"We are a full-service provider of medical, industrial and specialty gases, including bulk and cylinder gases, gas-handling equipment, high performance purification systems, and related hardgoods," says Greg Vasek, Linweld's president. "Manufacturers represent the biggest segment of our customer base."

With more than 65 Iowans working in retail operations in seven Iowa communities, Vasek says the new air separation facility in Grimes will create eight full-time jobs as well as a host of related jobs when completed in the summer of 2009.

"The whole Linweld organization will grow, from our retail associates to transportation specialists and service people," says Vasek. "We will also be actively looking for manufacturers that can use our products to cluster around our facility."

"The new facility will help us deliver on our commitment to support the growth of business in all our segments, particularly small and medium manufacturers throughout Iowa and the upper Midwest."

And Linweld will find a lot of prospective customers in Iowa. According to IDED, the state has more than 4,200 manufacturers, employing more than 230,000 Iowans and generating $10 billion in annual payroll.

Linweld joins a roster of advanced manufacturers that include ALCOA, Deere & Co., Rockwell Collins, Winnebago Industries, Veermer and Quaker Oats.

These and many other Iowa companies are leaders in the making of food products, recreational vehicles, aluminum, steel, plastics, printing, fabricated metals, farm and construction machinery, appliances, chemicals and bioscience ingredients.

"Manufacturing is a mature industry, but the sector is vibrant and full of companies that are continuing to grow and find ways to compete with overseas competitors," says Vasek.

When the Linweld air separation plant is operational, atmospheric air will be filtered, compressed, and cooled. Contaminants are removed and the air is then separated in a four column system to produce the industrial gases nitrogen, oxygen and argon.

The composition of dry air is approximately 78 percent nitrogen, 21 percent oxygen, and one percent argon (by volume) plus small amounts of carbon dioxide.

"Using electricity and air as our raw materials, the plant produces gas (and liquid) products using very low temperature distillation to separate air components and achieve desired product purities," explains Vasek.

Linweld's parent company is New Jersey-based Matheson Tri-Gas, Inc., which is the largest subsidiary of the Japan-based Taiyo Nippon Sanso Corporation group, one of the five largest worldwide gas organizations.

One of Matheson's specialty gas developments helped forge one of the most important inventions of our era, the integrated circuit. The company provided the world's first commercially produced chemical that made semiconductor chip production possible.

"As a member of a worldwide industrial gas organization, we have the ability to be the single source provider of industrial and specialty gases for our customers," says Vasek.

"In addition, being a member of a global company gives us the ability to make the large capital investment needed to construct our facility to better serve our customers."

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