

# Business

Iowa Agriculture Report | Iowa Networking | Your Money

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## Iowa Entrepreneurs

How Iowa entrepreneurs are taking ideas to market

# The accidental innovation

Workers at Diamond V Mills rarely got sick. The reason turned into an Ankeny company.



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Iowa is full of unusual entrepreneurs, and in the weeks ahead we will feature their stories.

We begin with Embria Health Sciences, a company that found its product by accident.

The Ankeny company makes a human health supplement, called EpiCor. Embria was spun off by Diamond V Mills after the Cedar Rapids maker of animal-feed supplements learned that its manufacturing process was super-charging the immune systems of its plant workers.

The short version of the Embria story began in 1998, when Diamond V factory workers asked if they could trade sick days for vacation days. They didn't need sick days, the workers said, because they'd been tracking it for years and virtually no one ever got sick.

Plant manager Paul Faganel looked at the data and approved the request.

He hadn't given it much thought before, but Diamond V's health insurance premiums had risen more slowly than other businesses'. Plus, the self-insured company had been getting back money at the end of the year from its insurer, because it wasn't spending all it set aside for health care.

Was something in the factory helping workers fight off common colds, flu and other ailments?

If so, it might be a first. It's easy to find unhealthy work places; but one that improved workers' health? That's unheard of.

Diamond V makes feed additives designed to aid digestion and promote animal health.

ELBERT, PAGE 2D



ARTURO FERNANDEZ/  
THE REGISTER

## Ethanol exports rise, even to Mideast

The U.S. market has been saturated, making the industry seek new buyers.

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Washington, D.C. — The United States has a growing new export — ethanol fuel — and a lot is going to, of all places, the Middle East.

New government data show that nearly 46 million gallons of U.S. corn ethanol was exported in March, up from 4 million in March 2009. For the first three months of this year, ethanol exports totaled 72 million gallons.

Twelve billion gallons of ethanol must be used domestically this year under the government's biofuel mandates.

That exported ethanol has been heading to a variety of nations, including the United Arab Emirates, Brazil, Canada, the Netherlands — likely bound for other European points — Nigeria and India. Holland and the United Arab Emirates accounted for more than half the shipments. The United Arab Emirates uses ethanol as an oxygenate in gasoline.

The increase in exports comes when the industry needs it most.

According to an industry trade group, the exports stem from the saturation of the U.S. market. The U.S. industry has been pushing the Environmental Protection Agency to raise the limit on the amount of ethanol that can be

ETHANOL, PAGE 4D

## Fight prevents consumers from watching TV online

While Apple works to find a television device for iPad, networks try to come up with their own plan.



## Paul Faganel's tips for success

"Entrepreneurs tend to be people with a high sense of urgency or drive," said Embria Health Sciences President Paul Faganel, who offered these tips for anyone starting a business:

- **Remember that everything seems to take twice as long as we think it should.** Practice patience, because if you move too fast you may overlook key details or other opportunities.
- **Hire the best and brightest.** Take time to find the right fit. During the start-up, personality and the relationships around you are as important as experience and education, although this will change as you grow.
- **Remain focused.** Write down goals and work to meet them. You will see many additional opportunities, but if you chase them all, you will lose focus and it will detract from the main goal.



## ELBERT

FROM PAGE 1D

Maybe, Faganel thought, workers were somehow ingesting the product and it was strengthening their immune systems, just like it did for family pets and livestock.

"We asked for volunteers to give blood and saliva samples, and we found the immune levels of our plant workers were quite a bit higher than for a control group," he said.

"We did air sampling, because obviously these people weren't just taking handfolds and eating it."

The product was indeed airborne, and workers were breathing it.

From the air samples, they were able to get a rough idea of how much workers were ingesting.

"These were people who had been with us for 10-plus years," Faganel said. "This was actually doing good, and it was our product."

"What we had to figure out was could we make a human form and get it to a close where it's small enough and easy enough to take, and will it still be as efficacious as what" the workers were breathing.

### Founder had an idea from his childhood

A longer version of this story dates to 1943, when C.W. Bloomhall founded Diamond V Mills in Cedar Rapids.

Bloomhall was in charge of sales for what is now Penford Products in Cedar Rapids, but left at age 58 to start his own business. It was based on an idea he'd been kicking around for many years, said John Bloomhall, Diamond V's current chief and a grandson of the founder.

The founder had grown up on a ranch in North Dakota, where "he noticed that when the animals were fed a fermentation product that consisted

of waste milk and food scraps, they did better," the grandson said.

He'd always wanted to start a company to make a fermentation product, John Bloomhall said.

Diamond V's fermentation products help animals' digestive processes. Among other things, it helped immune systems fight off disease.

Farmers recognized the benefit long before they knew why, and before long Diamond V had a loyal following.

Sales have grown every year since the company was founded 67 years ago, John Bloomhall said. "Sometimes, it was 10, 15, 20 percent; sometimes just 2 percent."

The family-owned company does not release financial information.

Diamond V has about 180 employees and expects to add 20 by the end of the year, Bloomhall said. Its feed supplements are sold in about 45 nations worldwide and throughout the United States.

### Studies focused on immune system

Once Faganel was convinced Diamond V's factory was helping workers stay healthy, the company embarked on an extensive research program.

First, it divided employees into two groups: the roughly 20 people who worked in the plant and a similar number, balanced for age and gender, from workers whose offices were in another building.

They found, Faganel said, that plant workers had elevated IgA levels. IgA is an antibody in mucus membranes that binds with bacteria as it enters the body, he said. IgA cells escort bacteria through the body "so you don't get sick."

The workers also had



RODNEY WHITE/THE REGISTER

Paul Faganel, president of Embria Health Sciences, holds the human health supplement that Embria makes in powder form and some of the capsules that are sold to the public.

### Studies show product's benefits

Embria Health Sciences has completed a number of studies in conjunction with independent researchers about potential benefits of EpiCor.

The findings include:

- A showing that EpiCor was effective in reducing "the incidence of the common cold or flu-like symptoms compared to placebo." — **Journal of Alternative and Complementary Medicine, March 2, 2010**
- "Daily nutritional supplementation with 500 mg of EpiCor may be an effective adjuvant preventive treatment in patients recently vaccinated for seasonal influenza." — **Urologic Nursing, February 2008**
- Once-daily doses of EpiCor "significantly reduced nasal congestion by approximately 12 fewer days and reduced other common symptoms in individuals with (allergic rhinitis) during the time of highest documented pollen count periods of the year." — **Advances in Therapy, the International Journal of Drug, Device and Diagnostic Research, August 2009**

### Where to get EpiCor

EpiCor's 30-capsule bottles can be purchased at some Hy-Vee Food Stores or online at 4GreatHealth.com for \$13 to \$20 a bottle, depending on size.

increased activity among what are called natural killer, or NK, cells. "The workers' NK cells were more active at going out and attacking rogue cells," Faganel said.

Once they understood what was happening, Faganel said, Diamond V research focused on how to make a human version, and the daily dosage.

Later research would focus on quantifying health

benefits, but "by 2004 we had enough information to go to the board and say, 'This is something that's pretty cool, and we need to invest in it,'" Faganel said.

"In 2005, we formed Embria Health Sciences, and we launched the product in 2006," he said.

The manufacturing process is yeast based. It begins with what is commonly called "baker's yeast," which is given oxy-

gen to help it grow. Then, it is subjected to fermentation and drying.

"At the precise moment when the cells are healthiest, they are deprived of oxygen and a proprietary mix of nutrients is added," according to company literature.

The resulting compound is dried and processed into a substance that looks like brown cotton candy, which is ground into a brown powder that can be packaged in capsules for direct sale or sent to manufacturers who combine it with other vitamins.

### Creating the plan to market EpiCor

Faganel was Embria's first employee in 2006. He is now president of the 17-employee business.

Embria built in Ankeny on a five-acre lot east of the Tone's Spices plant. The headquarters is in a \$10 million, award-winning, 42,000-square-foot building designed by Stanley Consultants of Muscatine. It includes 26,000 square feet of space for biotech manufacturing and storage.

The marketing strategy is driven, in large part, by the human health supplement industry, where several supplements and

vitamins are combined in a single pill or capsule. As a result, EpiCor is available in more than 20 different store-shelf brands.

It's also available in pure capsule form at select Hy-Vee stores and online from Pro Active Health Products of Cedar Rapids at the website 4GreatHealth.com.

Embria wanted a direct sales channel for several reasons, Pro Active's Kristine DeKlotz said.

Farmers who are familiar with Diamond V's livestock products "were eager to have a similar product for the humans," DeKlotz said. Plus, the H1N1 flu scare of the past year had many people seeking to improve their immune systems.

Faganel also believes there is a market for EpiCor in corporate wellness programs. He recently traveled to Washington, D.C., to promote it to the Department of Defense as a low-cost way of keeping soldiers healthy.

His pitch went like this: Soldiers have a lot of stress.

- Stress works against the immune system.
- EpiCor helps the immune system.
- Supplying soldiers with EpiCor should significantly reduce the number of military sick days.

The same argument applies to the private sector, where Faganel argues that the cost of an annual supply of EpiCor — about \$150 — will save businesses many times that amount in paid sick days.

Two years ago, DeKlotz made a presentation to employees of ADM in Cedar Rapids. Several signed up to buy EpiCor at their own expense, including Pat Walhart, an engineering assistant.

"I was getting bronchitis four or five times a year," Walhart said. "Now, maybe once a year I'll have a bronchitis infection or cold."

"I constantly recommend it to people."