# Titanic Begonia, Four Star's Name Change, Plants by Air, Pop Tulips

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### Titanic begonia surfaces after 102 years

German breeder Ernst Benary has seen a lot of world history in its 171 years. Even Gregor Mendel, the "father of genetics," used Benary pea seeds to conduct his famous hybridizing experiments. But Benary's most unusual connection to history is the well-documented fact that Benary flower seed was on the Titanic when it sank in 1912.

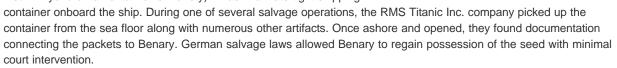
Now, bringing that amazing story to life, Benary will be selling an extremely limited number of begonia liners grown from that very seed, which was recovered from the ship's wreckage in 2010. The official sale date is April 14, the 102nd anniversary of the sinking of the Titanic, but you'll be able to see the variety, named Titanic, naturally, at Benary's Spring Trials display in Watsonville, California.

How is it possible that 102-year-old seed is still viable? And how was it found and recovered from the wreckage?

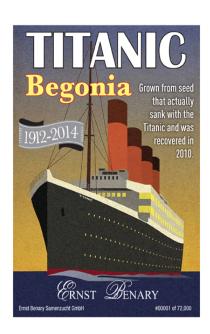
Benary Co-Managing Director Matthias Redlefsen told me that the sunken seed was recovered by accident by RMS Titanic Inc., a salvage operator, in 2010.

"We know, of course, that Benary seed had been aboard the Titanic," he said, "but we never even dreamed of recovering it. That would be crazy ... if you could find it, it would have rotted or been eaten by the fish or something. When they told us what they had, we couldn't believe it. We still can't."

Matthias explained that the seed—400 2,000-seed "trade packages" of Primadonna begonia (which was introduced in 1909 by Benary as the world's first F1 hybrid ornamental flower variety)—was in a watertight shipping



But what to do with the seed now that they had it? Put it on display? It was Seed Technology Specialist Gudrun Rufeger who first brought up the crazy idea of germinating the seed to see if it was still viable. She reasoned that,



provided it had stayed dry, the high pressure and low temperature at 12,500 ft. below sea level—5,577 psi and 32-35F—would preserve the seed almost cryogenically.



Gudrun Rufeger, with some of the first seedlings of Titanic begonia.

Gudrun worked with professors Karl Schmid and Albrecht Melchinger at the Institute of Plant Breeding, Seed Science and Population Genetics at the University of Hohenheim to formulate a plan for handling the seed, which proved to have a germination rate of about 30%. Knowing the historical value of even the unviable seeds, the team developed a way to recover them after sowing so they can be kept for posterity in their original packaging.

Plugs will be grown at two undisclosed facilities in Germany and North America in 406-count plug trays, then bumped up to special 24-count, 84-size liners. These will be offered only to professional growers along with a special 8-page booklet tag to give each seed the best chance of making finished plants to offer to plant collectors and the public. A percentage of the proceeds will go to the Titanic Memorial Garden in Belfast, Ireland, as will some Titanic begonia plants.

As for quantities and prices, Matthias jokes, "Very low, and very high!" He says they'll be able to offer no more than about 3,000 trays of liners worldwide. Wholesale price for a 24-count tray is expected to be \$600 per tray (\$25 per liner), with retail pricing for 6 in. or larger pots suggested at "whatever the market will bear," Matthias says.

"We hope Titanic will rival tulipmania in craziness, and that it will bring a lot of much-needed media attention to gardening this spring."

To get in line for the April 14 launch, email Matthias at matthias.redlefsen@benary.de.

#### **Four Star Greenhouses Gets Name Change**

It's rare for a successful, established business to change its name, but that's just what Four Star Greenhouses of Carleton, Michigan, has done: The company's name is now Five Star Greenhouses, announces founder and President Tom Smith.

I called Tom to find out why the change.

"Actually, it wasn't my idea," Tom admitted. "It came straight from my staff. They'd put together an argument for the change and brought it to me during a regular staff meeting, and their reasoning was so sound, I really couldn't argue with them. In fact, I love the idea!"

Leader of the staff movement for the name change was Jeff Back, director of greenhouse operations. Busy with deliveries, Jeff didn't have time for a phone interview, but he did answer my questions via email.

"When Four Star was originally conceptualized, well over 30 years ago, most rating systems consisted of four stars," he says. "If something was rated four stars you knew it to be first in class, excellent, best of the best. As our logo stated, 'If you want the best, reach for the stars.""



However, he continued, in the current world of social media and global commerce, the new accepted rating system is based on five stars—think hotels, Amazon, Netflix, travel sites, even Facebook, he pointed out.

"Today, for something to be rated as or referred to as four star means to be good, above average, but not the best. It became apparent to us that to continue be recognized for excellence in our marketplace, we need to be known as Five Star Greenhouse."

Tom says another benefit of the new name is that it shows the company has grown and evolved over its 30-plus year history.

"What better way to show our growth and progressiveness as a company than to have our name graduate, if you will, to Five Star Greenhouses?"

### Smith Gardens tests aerial delivery to stores

Inspired by two timely trends—Amazon's idea of delivery via drone and the popularity of the television logging show "Ax Men"—Smith Gardens will be testing the viability of helicopter plant deliveries to their big-box customers.

I got the full scoop from company patriarch Terry Smith. Terry, who used to climb mountains in his spare time, is widely known as an outside-the-box thinker.

"Did you see the '60 Minutes' episode where Jeff Bezos from Amazon talked about his idea of delivery by drones?" Terry asked me. "That stuck with me for days afterwards. I kept picturing our plants flying right to customers' houses.

"Then, about a week later, I was changing channels on the TV and caught a glimpse of a helicopter flying a log out of a forest—heli-logging, something they do up here [in the Pacific Northwest] all the time. That's it! Not one plant by drone, but a whole truckload of plants by helicopter."



Getting ready for a test lift at Bellingham International Airport. The cargo box, which detaches from the truck chassis, holds 12 shipping racks.

His sons Eric and Mark, who manage the company, weren't easy to convince.

"Frankly, we're used to my dad having crazy ideas," Eric says. "We listen to them, and we give them careful consideration, and sometimes they're just crazy enough to work. But to be honest, neither of us thought this was anything but nuts."

That is, until their distribution manager, Mike Vario, found out it might work, both logistically and financially, especially if they factor in the customer service benefit of fast service.

Mike had called Met Aviation of Plimpton, Washington, to do a bit of research. Sidney Finch, owner, outlined the costs involved, and the two determined that, if they could set up several centralized pickup points, a Kaman K-MAX helicopter could ferry up to 12 racks in a box-truck cargo box in about 1/10th the time needed for truck delivery. Smith's merchandisers will roll the racks out of the box and the helicopter will fly back to pick up a load for another store.

The cost? A mere \$1,800 per hour, says Sidney.

"I'll admit, when I heard that, I thought the idea was dead," Terry says. "But Mike was one step ahead of me. He had sharpened his pencil and calculated truck costs, drivers, time, fuel and everything else, and got it to where the difference between road delivery and air delivery wasn't so big. And then, you figure in the intangible of lighting-fast customer service .... Plus, it's just neat to be able to tell a customer you can offer helicopter delivery. We had to give it a try."

This spring, Smith Gardens is testing the concept with one of their smaller regional customers before dropping the idea on their bigger customers. Terry says the Federal Aviation Administration had to give special permission to allow the parking lot hovering (which can take place only at the rear of stores, not in the more crowded front parking lots. The seasonal (April-June) permit falls under the same category as construction lifts, he says.

## **Dutch grower introduces "pop" tulips**

I wouldn't have believed it if I hadn't seen the video. Dutch grower Niels Kreuk has come up with a system that takes the long wait out of tulip growing: microwaveable "Pop" Tulips, for "instant happiness." The result is fresh cut tulips from a microwave popcorn-style bag.



Niels, of course, is mum on how the bulbs have been treated. But microwaving them in the special bag releases the stem and bloom from the bulb. A little time in water and they refresh nicely.

You can watch Niels and the Pop Tulips in action in this VIDEO.

## **Better watering with Google Glass**

There's a "glass half full" joke in here someplace: Dramm, always on the leading edge of ideas, is launching a watering app and wand called WateringPro that works with Google Glass. (For those who don't know, Google Glass is an eyeglass-mounted Internet connection that lets the user connect to and interact with both the Web and the real world.)

In a press release, Dramm's Kurt Becker explained that WateringPro is "designed to increase efficiency of hand watering while training the user to water better."

Using the unique Google Glass camera, heads-up display and a special Bluetooth-connected WateringPro watering wand, the WateringPro App determines the amount of water needed by each plant and measures the flow of water from the wand to meet each plant's specific needs. The system uses infrared imaging to detect plant stress levels, indicating the need for watering. These levels are visible to the user as varying colors from green to red. As the user moves to water stressed plants, the Bluetooth wand measures the flow to each plant and indicates the saturation of each pot by altering the overlay color to blue. Overwatering will result in a purple color overlay.

To begin watering, the grower says "Okay, Google, water." The Bluetooth-connected wand will begin immediately. Other available commands are, "Okay, Google, more water," "Less water" and "Stop." As growers use the app, they'll begin to learn how much water is needed by each plant.

For those employees slower to learn, the Bluetooth wand has an additional feature. Two electrodes in the grip of the wand can emit a small electronic shock from 0.000005 joules to 0.0005 joules. As the user continually over or underwaters plants, the WateringPro Wand can give them a little reminder.



Learn more about the WateringPro app and wand HERE.

See you next time,

Chris Beytes
Editor & Publisher

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