

How Orchids Got So Cheap

Taiwan has refined the breeding of orchids into a mass-production business. Most growers handle one step in the process, such as cloning orchids through tissue culture.

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Taiwan's Efficient Growers, Who Copied Tech Industry, Bemoan Days When a Flower Fetched €75,000

WUSHU VILLAGE, Taiwan—A custard-yellow orchid dubbed P. Golden Emperor 'Sweet' changed hands between Taiwan breeders in 1978 for €75,000.

Now, orchids roll out of greenhouses in Taiwan and onto the shelves of retailers like Lowe's for as little as €4.

As with flat-panel TVs and laptops, the once-rare orchid has become a mass-market commodity. Orchids now are the best-selling potted flower in the US, with annual sales exceeding the poinsettia, according to the US Department of Agriculture.

Behind the shift are the entrepreneurs of Taiwan, who have brought to orchid-breeding the energy and methods applied to making consumer electronics.

One result is familiar to many electronics makers: While global orchid sales are rising, profit margins are thinning.

"An orchid is no longer worth what it used to be," said Wu Po-Hung, one of Tainan's largest orchid growers.

"We learned how to grow them too well."

Greenhouses rise from the humid plains of southern Tainan County in clusters that bring together dozens of small growers. Each specializes in a specific stage of the production cycle—from germination to potting plants.

Together they form an intricate orchid-production chain that can produce orchids to meet client specifications. Its efficiency resembles the assembly lines of Hon Hai Precision Industry Co., the Taiwanese contractor that makes iPhones and other Apple Inc. products.





Small orchids in containers sit on shelves of a tissue-culture room at an orchid farm owned by Wu Po-Hung in Tainan, Taiwan

Overall, since the US first permitted imports of Taiwanese potted orchids in 2004, the wholesale value of a large potted orchid in the US has dropped around 30%, with inflation factored in, according to figures from the US Department of Agriculture. Smaller orchid plants now wholesale for as little as 100 New Taiwan dollars (€2.50.) It is a reversal for Mr. Wu, whose family originally grew orchids on their rooftop as a hobby. His father turned it into a business after discovering he could make more money selling collectors the orchids on weekends than in his day job as an airplane mechanic.

A market for rare orchids still exists. But that has been on decline since the mid-20th century when horticulturalists figured out how to clone orchids from tissue cells.

For centuries prior, growing orchids was something of a mystery. Their dust-like seeds would sprout only if they landed on particular types of fungus. They grew best clinging to trees or rocks, instead of dirt, in the jungles of Southeast Asia and South America.

The ancient Greeks saw the orchid as the incarnation of a nymph's lustful son who had tried to rape a priestess. In Victorian Europe, orchid hunters hired by wealthy collectors sometimes killed each other in pursuit of new breeds—the subject of Susan Orlean's 1998 book on orchid history, "The Orchid Thief." Disliking its often



Orchid greenhouses often bring together dozens of small growers, each specializing in a specific stage of the production cycle. While generally it takes one to two years to grow an orchid, 'most Taiwanese orchid growers keep the plants for only a six-month segment,' says Mr. Wu

ostentatious collectors, American author James Agee wrote in 1935 that the orchid was "the Largest, the Loudest, the Most Expensive, the most supercharged with Eroticness, Glamor, Prestige."

The contemporary orchid-breeding business in Taiwan and its main rival, the Netherlands, centers on the Phalaenopsis, or the moth orchid. Native to Taiwan, it is popular with overseas customers for its full petals in pink, purple, white and yellow.

In the 1980s, a government-owned sugar company started growing orchids and found it more profitable than its core business. A decade ago, the Taiwan government plowed under huge swaths of unprofitable sugar cane to build greenhouses for orchids.

Following the tech industry model, the small growers grouped together into production chains.

Some growers focus on new breeds, coaxing cloned orchid cells into tiny green curls floating in glass flasks. Others then raise the slow-growing seedlings, packing them with dry moss into flexible plastic pots.



Since the US first permitted imports of Taiwanese potted orchids in 2004, the wholesale value of a large potted orchid in the US has dropped around 30%, with inflation factored in, according to figures from the US Department of Agriculture. Smaller orchids now wholesale for as little as US\$3.33, Mr. Wu says.

Orchids are the best-selling potted flower in the US, with annual sales exceeding poinsettias, the USDA says.

The seedlings go through three growth stages of 4 to 6 months each, usually under the care of different growers, and are repacked each time into successively larger pots. Then they are shipped overseas. At a greenhouse in the US, a shock of cold jolts the plants into flowering. Then they go to the most profitable stage: end-user sales.

The process has allowed Taiwan to become the world's largest producer of orchids by shipment number (the Netherlands is actually the largest producer by revenue) while capturing only a fraction of the profits. It is a ceiling Taiwanese companies have hit repeatedly: from laptop computers to power wheelchairs and golf club heads.

After building its economy on small-scale, low-margin manufacturers and efficient supply chains that revolutionized global pricing for a host of manufactured products, Taiwan has seen most of the profits flow elsewhere. Taiwan President Ma Ying-jeou and other politicians have called repeatedly for "structural reform" to solve the predicament, but have yet to produce solutions.



Workers prepare young plants to be exported. A market for rare orchids exists. But that has been on decline since the mid-20th century when horticulturalists figured out how to clone orchids from tissue cells.

"Taiwan's orchid growers can't do much except keep trying to cut costs lower to stay ahead," said Ting-Fang Hsieh, director of Taiwan's government-run Floriculture Research Center.

Taiwanese growers bemoan that they ship more orchids than the Netherlands, but the Dutch manage to make more money from orchids. A major Dutch competitor, Floricultura BV, has built its own greenhouses in the US, which means it can control the more lucrative sales to retailers.

Though Taiwan has some industrial-scale production, most of the business is dominated by small family-run shops that focus on a single step. That, to some, is sapping profitability.

While generally it takes one to two years to grow an orchid, "most Taiwanese orchid growers keep the plants for only a six-month segment," said Mr. Wu, the Wushu Village grower. The strategy, he says, limits investment risk but also means Taiwanese growers don't control sales overseas.

Some growers are experimenting. Nadison Hsu, the 43-year-old chairman of Taiwan's largest orchid-growing collective and an ex-government official who favors pink and green Hawaiian shirts, said the industry needs to consolidate and innovate to succeed.



Ready for export. Mr. Wu's farm has more than 500 orchid varieties.

His company, Taiwan Orchid Professionals, began selling a brand of orchid-infused beauty products in Asia. It is also selling gold-coated orchids as a gimmick to build the brand. The company became the first horticultural company to list on Taiwan's over-the-counter Gre Tai Securities Market this year, a precursor step to listing on the Taiwan Stock Exchange.

Showing off a large orchid plant with seven spotless white blooms cascading down a central stem, Mr. Hsu pointed to the four pairs of leathery green leaves, which show that the plant had taken four years to reach that size.

"How much do you think we can sell this for?" he says. "Just 250 New Taiwan dollars" - €6.25. ■

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