Natural Products

An Interview with Pamela Marrone, Chief Executive Officer and Founder, Marrone Bio Innovations (MBI)

EDITORS' NOTE Dr. Pamela Marrone started MBI in 2006. In August 2013, she led the company IPO on the NASDAQ stock exchange. Prior to establishing MBI, Dr. Marrone founded AgraQuest where she served as its CEO, Chairman, and President. Before AgraQuest, she was founding president of Entotech, Inc. Marrone started her career in biopesticides by leading the Insect Biology group at Monsanto. Dr. Marrone has a B.S. in entomology with Honors and Pamela Marrone



Distinction from Cornell University and a Ph.D. in entomology from North Carolina State University.

COMPANY BRIEF Marrone Bio Innovations, Inc. (marronebio.com) strives to lead the movement to a more sustainable world through the discovery, development, and promotion of biological products for pest management and plant health. MBI's effective and environmentally responsible pest management solutions help customers operate more sustainably while uniquely improving plant health and increasing crop yields. MBI currently has six commercially available products (Regalia[®], Grandevo[®], Venerate[®], Majestene[®], Haven[®] and Zequanox[®]) as well as eight product candidates in various stages of the company's rapid development pipeline. MBI also distributes Bio-tam 2.0® for Isagro USA in the western U.S. and Jet-Ag® for Jet Harvest in most regions of the U.S.

What was the vision behind the creation of **Marrone Bio Innovations?**

This was not my first startup - it's the third of a lifelong mission and vision to create natural products that are less toxic and more sustainable than existing solutions to control pests and increase crop growth.

It's a continuation of what I have been doing my whole career that was the inspiration for this startup. I started Marrone Bio Innovations because I was taking my previous company public at the same time the events of 9/11 occurred. I started working on filing the offering a few weeks before then. I was due to fly to New York City on September 12, 2001 to begin the road show. Unfortunately, this didn't happen, the markets closed, and one thing led to another with a takeover of the company, so I left and started MBI.

Where does the business stand today and what are its most anticipated opportunities?

Everything was going really well, and we took the company public in 2013. Unfortunately, in 2014, we were made aware of a side deal with customers that led to a massive investigation and restatement, resulting in the arrest of our head of sales on charges of fraud.

It was a difficult, almost companykilling experience. We came through it, but we lost a few years of development

of the company.

We virtually restarted the company and restructured it at the end of 2015 and, in November of that year, we restated our revenue.

Following this, we had seven quarters of way above industry average growth. We're at the stage where we have invested the money that we've raised wisely in product development and getting products into the market - we now have six products on the market. Our current focus is on growing our business with existing customers and gaining new ones, especially internationally in Latin America, Africa and Asia.

We're also adding a few new products to the portfolio that can create additional revenue over the next few years.

Will you discuss the six products you offer today?

They're not interrelated; each one is standalone and a different kind of ingredient. They're related only in that they're all natural products and solve farmers' problems.

Our first one on the market was Regalia, which is an extract of giant knotweed. We harvest knotweed and dry it, and put it into a big vat with hot alcohol, and it produces an extract that can be sprayed on crops. It's marvelous at increasing crop growth, yield, and quality, while controlling powdery mildews and other crop diseases at the same time. It is our biggest selling product right now and it's the most advanced internationally; it's now registered and starting to grow in 11 countries, with several more pending.

The next two products, Grandevo and Venerate, are new species of bacteria - one that we discovered and one that was discovered by the U.S. Department of Agriculture. These products control insects and mites such as aphids, whiteflies and worms that eat crops.

Grandevo was discovered under a hemlock tree in Maryland and Veterate was discovered near a Buddhist temple garden in Japan. These discoveriers can really be found in interesting places.

The next product we have is Majestene, which is a new species of bacteria we discovered. Once it's put in the soil through the irrigation system or in the planting furrow on a farm, it controls microscopic worms that bore into the plant roots and destroy crop yield.

Our fifth agricultural product is Haven, which is an extract of coconut oil. It can be sprayed on crops to reduce water loss and sun stress, and increases the crop's growth, quality and yield.

We also have a very interesting product called Zequanox that controls invasive zebra and quagga mussels that invade lakes and pipes in power and industrial plants. This is a dead bacteria that was discovered by the State of New York that we licensed and commercialized. It's injected into a pipe and stops the mussels from clogging up the pipes.

These mussels came in from Eastern Europe and invaded the Great Lakes and have now spread across the country, into Canada, and down to Mexico. This product can kill these mussels in a lake or as they are pumped from the lake into pipes that move cooling and processed water into the plant.

How were you able to maintain a positive point of view and convince people that you were going to survive the turmoil?

After the debacle, we restructured in the fall of 2015 and slimmed down the company. We told our people that we wanted them to stay going forward only if they wanted to be here, not because they felt they had to be here.

We did lose many employees to one of our largest competitors. It was very distressful seeing one person after another leaving. However, at the end of the day, the core team we ended up with are those who chose to stay even though they knew this would be tough to get past. They believed so strongly in the mission and vision that we ended up with the best team I have ever had.

We had to do a reset of the company culture and we did a lot of work establishing the culture we wanted to have going forward, and now every employee is a part of that culture.

When we interview people, it used to be that we would look for skills and then culture fit now, if a person has great skills but won't be a culture fit, we won't hire them.