

Breathe **SILVER** Win **GOLD**

OKLAHOMA WOMAN DEVELOPS AND PATENTS NEBULIZER

By Laci Jones

Oklahoma native Tonda Collins used her background in the healthcare industry and her knowledge of horses to develop a potentially lifesaving product for horses as well as many other species.

Working as a medical salesman for one of the largest manufacturers and distributors of healthcare products for 15 years, Collins understood how many products are used by both humans and animals. She was the vice president of the animal health division during her last three years at Medline, where she worked with the top veterinarians and universities across the United States.

“My job was to go out, find out what they needed that we could provide, and do it at a much more inexpensive cost than what they were paying,” she explained.

Collins analyzed everything from surgical gowns to respiratory products. She found the products used to treat respiratory illnesses were difficult to use and saw a need for a better product in the equine industry.

A representative in Louisville, Ky., informed Collins of a product called EquiSilver, which uses silver.

“Silver has amazing healing powers and has been used for hundreds of years,” she added.

A veterinarian who created the silver solution was administering the product to treat respiratory illnesses, which has never been done before. Wanting to see the process for herself, Collins flew to the bluegrass state. It was race day, and

the owner used a large nebulizer to distribute the solution.

“It was 50 pounds, cost \$8,500 and the mask looked like a black flower pot,” she explained. “He was having to put towels around it to make it work.”

Collins talked with veterinarians and researched different nebulizers on the market. While nebulization is common for humans, it is used primarily by veterinarians in the animal health industry.

Collins said many veterinarians whom she spoke with knew

the value of nebulization, but they disliked the nebulization products on the market because they were too expensive, difficult to use and difficult to maintain.

“They would rather give a shot or give a supplement and move on,” she explained. “I realized there wasn’t a good product out there that anybody could use that would be affordable for the mass market.”

Collins began developing a product to withstand barn conditions while fitting horses of all sizes for the everyday horse owner

in 2013. She designed the unit in three parts: mask, compressor and nebulizer product.

Basing her design from an anesthesia mask, Collins knew she wanted the mask to be soft and clear while conforming to any nose size. In her design, the mask has a quick release and is easy to take apart for cleaning.

In the second part of the unit, Collins was challenged to find a compressor large enough to distribute a respiratory solution deep into a horse’s lungs.

“Horses can breathe in up to



56 liters of air at a time,” Collins explained. “Their lungs are one-third of their body cavity.”

She tested 20 compressors to find one that could withstand different conditions including heat and elevation. Collins finally found a small company based in the United States that made a compressor that fit her needs, and they allowed her to design her own unit.

“We put two fans in it to keep it cool and the pressure gauge is enclosed,” she added. “The pressure gauge is important for elevation and temperature. When someone nebulizes in a home, it is an ambient temperature, but when you’re in a barn or traveling, the temperature and pressure can change.”

In the third component of the unit—the nebulizer product—Collins chose to use silver as it is a natural, antimicrobial, bacterial, viral and fungal. The nebulizer product EquiSilver uses a chelated silver solution manufactured in an FDA-approved laboratory.

“The difference between the colloidal silver and the chelated silver is colloidal silver is 10 to 14 parts per million and is considered a dietary supplement,” Collins explained. “Chelated silver was designed for nebulization, which has 100 to 110 parts per million.”

Unless an ultrasonic nebulizer is used, which is expensive and difficult to find, colloidal silver will not nebulize because the particle size is too large.

A 2004 study published in the “Journal of Antimicrobial Chemotherapy” conducted by Kareen Batarseh found chelated silver has 32 times the efficacy of colloidal silver.

Batarseh’s findings in the study titled “Anomaly and correlation of killing in the therapeutic properties of silver (I) chelation with glutamic and tartaric acids” also showed the small size of the chelated silver can be nebulized, unlike colloidal silver.

“You will get a mist and think you’re getting something, but you’re basically using saline,” she added.

Once the unit was designed, it was then tested by Hagyard Equine Medical Institute in Lexington, Ky. Nathan Slovis, DVM, DACVIM, CHT, conducted the nuclear scintigraphy study, which proved the solution is distributed in the horse’s lower respiratory system.

The unit was patented in 2014. Equi-Resp offers three systems—Flexineb, Contender and Elite—used on a range of respiratory issues. Collins said the unit has helped horses with various respiratory issues such as allergies, asthma, pulmonary hemorrhages, COPD and more.

“It was such a joy to realize that not only do we have a product that is easy to use but is really making a major impact in the horse industry,” Collins added.

While the unit was originally

designed to be used in the equine industry, the product is also used on dogs, cats, goats, cattle and camels, among many other species.

“Cattle that are getting ready for the livestock market often come down with respiratory illnesses, and owners can’t take them,” she explained. “Typically, we would give them antibiotics, and then they wouldn’t be able to take them for 30 days, which costs the owner. By being able to do the respiratory treatments with silver has gotten those calves healed and clean within about three or four days with no antibiotics in their system.”

Collins said she is amazed at how much the company has grown in three years. Selling an average of 1,000 units each year, the unit is used by Olympians, race trainers, barrel racers and others. Equi-Resp can be found in 48 states and 10 countries.

“My husband laughed and said,

‘You’re the only person I know who is running an international company out of a garden room,’” she chuckled.

Based in Blanchard, Okla., Collins has many other ideas that she plans to implement.

“This is a business, but it’s also very personal for us,” she added. “It’s very rewarding, and it’s something that we are passionate about that we’re doing the right thing for the animals out there.”

Collins also plans to focus on education in 2018.

“This is a new technology, and there is a lot of misinformation out there,” she explained. “I want to develop a certification program. We have people out there doing treatments that don’t really know what they are doing, and we want to be able to give them accurate information to be able to do this right.”

For additional information, visit www.equiresp.com or find them on Facebook. 



A nebulizer is being used to treat a foal with an abscess in the lungs. (Photo courtesy of Tonda Collins)