

AskAnnie_Episode56_BioOxDrSamSofer

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This episode is brought to you by Air and Water Solutions, BioOx. Horses suspend their lives, exposed to an astounding array of airborne irritants and diseases. BioOx is the world's first organic air scrubber that destroys toxins, fumes, and germs leaving only pure fresh air in your stable. Call the BioOx team today at (301) 246-0151.

Our contact, the BioOx clean air experts online at bioox.us.

Dr. Sam Sofer: My name is Sam Sofer. I'm a PhD and a PE, which is professional engineer, uh, those degrees. And, um, my title is I'm president of BioOx doing business Air and Water Solutions doing business as BioOx.

Thank

Annie Kennedy: you for joining us today, Dr. Sofer, would you mind telling us a little bit about Air and Water Solutions?

BioOx .

Dr. Sam Sofer: Oh, definitely.

Thank you very much for this opportunity, Annie, um, Air and Water Solutions, uh, was a biotechnology company, uh, doing business as BioOx which is a registered US trademark. And our goal is to focus on basically bringing high-tech biotech to the planet and to the beings, uh, humans and animals and horses in it.

And basically what we're doing is we're trying to use as a natural way that the planet cleans itself to go ahead and clean the air or clean the water or clean the soil. That's our main goal.

Annie Kennedy: Wonderful. And you're the founder. What was the driving force behind starting this company?

Dr. Sam Sofer: Well, um, I have been, uh, chemical engineering, uh, chemical engineer working for chemical plants with good industrial experience.

And I, uh, was a professor and actually a department chair at the University of Oklahoma. And, uh, I was doing a lot of research in bio, but basically applied bio in that it was bringing it out of the lab. And, uh, uh, I got a call when I was in Oklahoma. I got a call from a recruiter in New Jersey. And the governor of New Jersey back then had, uh, decided that he would, uh, try to work with the schools to recruit, uh, what he considered top-notch people to come to New Jersey.

And so the head hunter called me and said he had an offer he could not, I could not refuse. And he was right because there was five years of unrestricted research, which means that

it's not peer reviewed. So it can be as out of the box, as you want. So it was really good and that was the best job ever.

And we learned how to design bioreactors for many things. And one thing we learned how to do was build bio oxidizers, biological oxidizers to destroy pollutants and contaminants. So the whole, uh, driver of it at New Jersey Institute of Technology, uh, was to get it out. The purpose of going into the lab was to develop something new and get it out.

That was our specialty. So we learned that we could build these standalone bio oxidizers that would actually wash the air they're scrubbers. They're not filters. They actually wash the air. So that means they remove all the smallest particles. There's two kinds of air pollution. One is the large particles.

That can fly out the window or blood being blown out the window. Those eventually fall down anyway, but the very smallest ones form aerosols like viruses or like ammonia for horses. Ammonia is very, very small. Filters cannot catch them. You have to actually scrub, you have to actually wash the air with this water that contains enzymes.

And after you capture the poisons, you have to destroy them and the enzymes destroy them. So basically you're doing two things that horses really, really need. One is you're pre washing, the air they're breathing and they need clean air to breathe. They can't have all that dust and stuff. So that's very, very important, but another one is you're destroying the ammonia

they make. The reason we, we ammonia is a poison and we have to get rid of it and we get rid of it in urine and in sweat. Both urine and sweat cause ammonia to come back up again, like in the stall. And so the horse keeps re breathing the same poison all the time. So what you have to do is you have to destroy the ammonia and otherwise the horse's liver would be destroying the ammonia.

So basically what this does is assist the horse's lungs by pre washing pre-cleaning the air and assist the horse's liver by destroying the toxins. Otherwise the horse would lose a lot of its oxygen fighting the toxin and less fighting disease. It'd be much less healthy, much less healthy like that. So here we are.

Annie Kennedy: That's really interesting. I mean, you kind of take breathing clean air for granted, and especially with those smaller particles, you might not necessarily know that you or your horse are inhaling those, um, which can cause some serious harm it sounds like.

Dr. Sam Sofer: Well, this happens for more than just horses, like mice in mouse labs, they have the same problem, you know, as they pee where they sleep.

And, uh, actually humans do, um, Um, swimmers in swimming pools actually, uh, because of their sweat, they, they have very complicated chemicals in the air. Also, remember viruses, viruses are very small and filters do not catch them, but when you're scrubbing it, you do catch it. And we've shown that our enzymes destroy two different kinds of viruses that we've tested and five different kinds of bacteria.

So for example, in dogs with dog kennels, we help prevent a kennel cough. And, uh, also just while we were talking about dogs to us, there's no difference whether it's a human or a horse or a dog living beings need to be respected and taken care of. So with dogs, we have a, uh, clinical study going on right now, uh, for dogs with cancer.

When they're diagnosed with cancer, as soon as they're diagnosed, they have the choice of taking, you know, as a normal chemo radio or whatever, or doing nothing. Or in our case, working with us. So what we do is we scrub their air clean, which helps the oxygen level. And we also give them an oxygen supplement and, and we've been getting very good results only with 14 dogs, but some of the dogs were supposed to die many months ago and are not so.

This all has to do with oxygen because without oxygen, we won't have the energy to fight disease. We won't have the energy to kill viruses or to detoxify ourselves. So that's why we have bio oxidizers help us do this. So, um, uh, Bodie Miller, uh, the Olympic skier called me and asked me if we could help his horses.

He was had an athletic training center for horses. So when I explained the idea that, uh, in our bodies, there's a reserve of oxygen. This is by the way on our website, under sciences, but, uh, but, uh, uh, our bodies store oxygen, not just in the red blood cells, but also in their own way. And we call that a reserve of oxygen.

So everybody has a reserve of oxygen dogs do baboons do, uh, and horses do. So, and humans do too. So, so when we're saying is that, uh, by putting these air scrubbers in, we will increase the reserve of oxygen of the horses. So, uh, uh, Bode sets us up a lab and everything and his thoughts and, uh, We had a lot of horses in there, but we were actually doing tests on a, at first, only 11 horses.

And then it went up to 18 horses. And the beauty of working with horses is that you can measure them before and wait a month and measure them after. And we found out that their blood oxygen was much higher and the ability to create new oxygen was much higher. So now we're predicting that with, uh, that's why we're making the dogs have air scrubbing too, because we know that works, that portion works.

So what we're predicting is that if their oxygen is higher, they'll fight disease better. Uh, Bode said, um, what he said that I noticed that myself and the horses are much more calm. When the air is clean, there's less tail swishing. There's less, less nerves. You could see less nervous energy. It's a good calm energy.

And, uh, uh, you can see already that it helps them. Bode was saying as a skier, just before a race, the key was to be calm. Instead of using up all your oxygen, getting nervous. So we're predicting that this will, uh, improve the, the actual performance of horses. And actually we're looking for anyone who wants to try that with their horses.

If they have a veterinarian that wants to work with us.

Annie Kennedy: Wow. That's exciting. What neat innovations that are continuously happening with the company. It's not just stagnant it's it seems like it's completely growing on itself, which is really exciting.

Dr. Sam Sofer: So it's related because, because, uh, uh, uh, energy is the driving force of each of our organs, you know, and the more nervous we get, the more oxygen we use up and this oxygen that we have in our oxygen bank account.

You know, so that's, it's on our website and we explain it with oxygen and we explained it with the horses. We talk about a reserve of oxygen, and we also talk about building the new oxygen. You have to build this kind of oxygen in order to use it. It's a brand new discovery in blood. We have a lot of patents in there, but the idea is, again, health ideas, health.

We want to improve the health of horses. We also want to improve the health of the planet. Uh, actually, we get our enzymes from the planet. This is how the planet actually does clean itself. So we're using a natural way where you copying the planets way, the way the planet cleans it's soil. When you have an oil spill, sometimes you'll hear people say, oh, in a while, the lake will clean itself.

The lake will clean itself because it has bio oxidation, enzymes and all kinds of living things that clean it. We're just borrowing from that and making it available.

Annie Kennedy: That's that's incredibly interesting. I, and I, I appreciate the natural approach to it too. That's that's very, uh, conscious. Um, how does BioOx apply to the everyday horse owner?

Dr. Sam Sofer: Well, for one thing, uh, everybody that visits the barn will smell no barn, basically almost no barn. It'll smell no ammonia. And, uh, uh, the horses will actually smell each other, but it's always a fresh smell. It's not like some horse was there four weeks ago and they're still smelling that horse. You know, it's always clean and clear so they can have a better social connection from the way they smell.

So the barn owners should be happier for that reason. Uh, actually also for the reason that when the barn owner goes there to work with the horse, it will help them breathe better air, you know, amazing things to become electrically charged. So to clean air, as we mentioned this before, we're talking about, you have to clean the bigger particles by sucking them through which we do, but you also have to clean the aerosols electrically charged particles, and those are harder.

So we create a little waterfall in there. I think the horses like the sound of it too, we create a waterfall in the machine and the waterfall is electrically grounded and that's how come it can absorb all the aerosols and all the urine and all the bacteria and everything else. That's that's in the air, you know?

So, so, uh, after you do that again, you have to have the enzymes to digest them. So when you have all those things working together, uh, the, the people and the horses that are living in what we call a clean air zone, all feel better. It's very noticeable.

Annie Kennedy: Yeah, I can imagine. And, and especially as you said, noticing the emotional impact on the horses that their, their nerves seem to be calm that that's in and of itself is great.

Dr. Sam Sofer: Yeah. They know, they know it, you know, when we first put these units in they're made of plastic, so they don't corrode and they're made in the US by the way, Uh, um, so when we first put them in, some people said, okay, no, no, these horses are going to damage this stuff. You know, they, they like to kick things and everything else let's protect them.

And we said, no, let's not. So we found out that the horses were actually like this. They can smell the good air. And what they do is they actually nuzzled the machine. It's really funny because some of the oats from, from their mouth falls into the machine and tries to grow in the water because the water is oxygenated, you know, So, uh, uh, no, the horses like it, they know what it is.

They know what it does. They are very highly intelligent. They know when they can smell their own urine, you know?

Annie Kennedy: Yeah, absolutely. And what do you recommend, um, how do you recommend horse owners or barn owners use BioOx?

Dr. Sam Sofer: Well, uh, we recommended that they creates a clean air zone for all the horses they have.

And what we do is we put different units, the units fall, right where they water the horses, where they have water and their, their stalls. And they just plug into a regular reg regular plug and, um, uh, they need to be watered. They'll use up some water, just like our lungs will use up some water. And, uh, what we do is we have a formula, depending on how many horses you have and how clean you want the air.

We have some high end horse barns that don't care how much it costs and want to keep these machines on is on a different floor. We have a formula that's on our website, too. Under specifications. We have a formula that says which model fits what, in Bode's case, he had like 48 stalls and we had like 23 of our model, three hundreds, and we had a big, we have a huge model called the 5,000.

We had some five thousands near like the entrance because wherever the entrance is, uh, the older is more because there's a lot of, uh, feces there and, and, you know, manure and so on. Uh, uh, so we, we decided for the barn, we applied for the barn and create a clean air zone. Uh, one thing I wanted to mention some of the modern barns are using, uh, uh, these, uh, mats, these plastic square grid on the track.

Thinking that that's going to help the horses hooves. I'm not sure it does because you know, we've had some recent accidents in the races, you know, for one thing, because plastic doesn't always behave the same way. Sometimes it gets tougher when you push on it. Like when you try to open a package that doesn't open, it gets tougher.

So I think that's hard on their hooves. But what did we discovered was some of these plastic pieces, like little squares of these pieces go up into the air, like an aerosol they're actually electrically charged, like static, electricity, you know, the way something sticks to, to your shirt as you pull it out of the dryer like that.

And those things go into our machine. So when we see a little, quite a big particle of that, We mean, we think that those particles need to definitely be cleaned out of the air because those things will really hurt the horse a lot more than, than, you know, ammonia. They're really plastic particles. So we know how to capture those.

We've also captured some horse flies by the way, because seriously, because of the, what happens is the machine by doing what the horse does is alive. And it makes carbon dioxide too, and flies are attracted to carbon dioxide, but once they go there, they're done there. They can't get out. So, uh, we think there's going to be less insects in the air, less flies and horse flies.

Annie Kennedy: Yeah, another perk. Absolutely. Um, going back to you, what is your typical day like at BioOx?

Dr. Sam Sofer: Whoa, because, well, we're very small, you know, and the good thing is that we're all US-based. And so it's, it's very easy for us to communicate and we're lucky we have a very good team, a team that really wants to help.

So remember that every time we make a placement, like we, we play some for horses, but we also play some for swimmers. You know, swimmers can get really, really bad respiratory conditions. After a swim meet in the trashcan, you find inhalers used inhalers. It's very sad. So the best thing that drives us is once they use our machines to clean that Olympic swimming pool, all these athletes always using it are always going to cough less.

Be much better performers, same with the horses. So that gives us a really, really good feeling. And that's what really drives us is because every time we have, we find a new client and we send, every time we send them enzymes, we know those enzymes are going to go a really long way to helping a lot of lungs, you know, so that drives us.

So, uh, basically, uh, it's nonstop movement, uh, yesterday, but we all work out of our office largely, but we have an office and warehouse area where we assemble things. Uh, and so, um, yesterday there were four of us there and there was, it was nonstop movement. It's like an ant colony with a lot of communication between us.

This is a lot of fun. We, because this is a lot of fun knowing you can help people in horses and pets. It's really nice, especially getting good results from the dogs and the cancer study, by the way, we need dog volunteers too. Because we want to move this cancer, uh, uh, study also to humans, to other animals such as humans.

Annie Kennedy: Wow. That's incredible. Would you say that's what you enjoy the most is the ability that your products are helping humans animals alike?

Dr. Sam Sofer: Absolutely. And it's in a natural way because some people say put UV light into the air. No, because you can have all kinds of other particles form. Some people say, just suck it in it.

Doesn't suck in, blow it out. You can have the windows down. You're going to still smell the ammonia. You know, so people try to destroy pollutants by putting pollutants into the air.

You know, that doesn't work like ozone, you know? Wow. Uh, it's much, much better to take things out of the air electrically grounded, electrically grounded, just, we are grounded to mother earth, so, and use a natural technique.

Just take things out of there and not put things in there. So that really drives us. Yeah.

Annie Kennedy: Yeah. My goodness. And how can a listener learn more about BioOx?

Dr. Sam Sofer: Well, if you, if you click onto bio ox dot U S BioOx stands for biological oxidation. So it's, it's a bio as in B I O and O X as in oxygen. So there's two O's

there is B I O OX dot U S everything's made in the U S so if you click on that as a science, if you scroll to the bottom, uh, there's a lot of information on the science. We want to be data-based like on the oxygen, we have numbers. We want numbers. With, uh, with the cancer dogs and cancer, we want numbers.

So, um, uh, I think they'll enjoy that just going through, especially for the horse owners, be sure to look at what Bodie has to say. Bodie Miller has to say, and also look at when we compare, uh, oxygen when we mentioned oxygen and you'll see the horse data. Uh, so I think that'll really, really help you a lot.

Cause you'll see real numbers.

Annie Kennedy: Yeah, absolutely. In my research, I was looking at some of your brochures and especially, um, the, the information that you have on Bodie and, uh, the pamphlet that you have for, uh, horses. It's, it's very interesting. And what, what, a neat and innovative product.

Dr. Sam Sofer: Horses. I think horses are very intelligent in many ways, more intelligent than we are.

And I think they appreciate it. I really do. I think they appreciate it, you know? So, um, that's what we, we we know we're going to clean their lungs, you know, that's for sure. And we know we're raising their oxygen levels, but, uh, and we also know that we can destroy the bacteria and viruses that are in the air, especially nowadays there's viruses going around.

So when there's no aerosol. When one horse gets sick, it's very unlikely that the rest will get sick because there's no aerosol and aerosol is like lightening. So if somebody sneezes over here, the entire, in this particular case, for example, at church 91, people can, can get the disease because the aerosol is like lightening.

You know, if you get it out of the air, it won't happen. So it takes something natural. It takes something biological to destroy something biological and disease, like viruses in the air or biological. It takes something biological. And our BioOx media we know have has intelligence and it knows what's toxic.

Annie Kennedy: Yeah. That makes total sense. That's all the questions that I had. Was there anything else that you wanted to talk about?

Dr. Sam Sofer: No, I just want to say thank you very much. And if anybody would like to, uh, know about horse performance and work through their vet, or if anybody's got other pets like dogs and cats, cats with asthma, or what have you that we want to join the cancer study.

Uh, we need, we want to have a lot of data. We want to have at least 1000 subjects, you know, because we really think that we're helping them. We know we're helping them right now. And we want to help all animals in the future.

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