

Environmental Green Non-Toxic Chemical Products for Paving, Industrial Cleaning, Resource Recovery and Energy that Work Better and are generally Less Expensive than their Petroleum Counterparts



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CEOCFO: *Dr. Chesky, the tagline on the BioSpan Technologies site is, "We Make Science and Technology Practical." What is your approach?*

Dr. Chesky: We are taking the discoveries that we are making in Green technology, that is nontoxic biochemistry and chemistries, and taking the discoveries and converting them into product applications and specific product uses along the way, thus taking the science and the engineering technology, because we do keep onsite civil engineers who answer questions in the areas we market our products, and convert all that information and products that work under the most demanding actual use conditions. This is not just in a laboratory setting, but these products really work in the real world, they are all nontoxic, and they work better than their comparable petroleum-based counterparts.

CEOCFO: *Where does cost come into play?*

Dr. Chesky: Cost plays an important role throughout our business. It drives our new product development at the beginning of the research since our focus is on creating new, better performing products which are "green" while saving our customers time, labor, and money. This is particularly true with our research and development of soybean oil solvents which replace their petroleum counterparts. We have commercialized these in our end products which are non-toxic to the user and the environment.

Many of our products are new discoveries that people are not aware of and the press does a wonderful job of making the public aware of what is going on with our new developments in non-toxic pavement preservation. Recently we were on CNBC as part of a program that dealt with soybean technology. We have been doing pavement preservation research using this soybean technology for well over twenty years which has produced several new pavement materials which extend the use life of the pavement by 2-3 times and provides a significant savings for the communities that make use of our products.

Some costs are difficult to control because of the variability of the raw materials used. Since most of our raw materials are derived from sustainable, domestically grown plants the price of these materials is determined by the annual yield of each of these materials. One active ingredient which we use has a price range of 60 cents to \$4.50 per pound. As you can imagine, it is very difficult to forecast the cost of goods sold and maintain a reasonable profit margin with these variances. We can control our fixed costs, but it is difficult to predict what the costs will be on these materials. Obviously,

this affects our profit margins on each product which varies year by year. We try to maintain our selling prices in a range that is acceptable to our customers and still allow us to make a fair and reasonable profit. We will absorb the shortfall if necessary to protect our patented products. We are a "patent heavy" company so our legal fees are significant when it comes to protecting our chemistries.

Our materials are non-toxic and actually work better, are generally less expensive, and perform well even when their petroleum counterparts stop working. As I indicated earlier, all costs drive our business from R&D to selling and servicing our products and technologies.

CEO CFO: *Regarding pavement, what have you developed?*

Dr. Chesky: We have several products for pavement preservation and technology starting with our first discovery, AR600™ which is a patented non-toxic asphalt and tar remover. It works on all types of polymer modified cement which holds rock together to form asphalt pavement. In addition, we have another patented material that will convert ground-up millings that have been scraped off highways by restoring and converting them into essentially new paving materials. Activate™ Milling Restorer permits the reuse of what used to be called garbage or junk. We are several new polymers made from all the things that you and I eat every single day. The result is new pavement used to make roads and patch actually recycling the pavement, converting it into new materials by reducing the oxidation on the pavement and adding potholes.

"Our focus is simple, make environmentally Green products that work in the real world that are safe and effective, do not pollute or create problems in the environment but actually help clean it up while saving the taxpayer money." - Dr. Sheldon Chesky

Our greatest achievement so far is the family of RePlay Agricultural Oil Asphalt seal and PRESERVATION AGENT®. These consist of products which are agriculturally based asphalt pavement penetrating seals and preserve and extend the life of the pavement. There are two versions of this material: one which is a clear version which is used to restripe the highway or the street while preserving it. The other material is RePlay Midnight which is a jet-black version of the same material and it requires restriping because the black polymers penetrate deep into the asphalt matrix and obliterate the existing striping.

What makes this so unique is the fact that both products penetrate deeply into the asphalt matrix from three quarters of an inch to an inch and a quarter into that asphalt. Both products work by reversing that oxidation which is what causes asphalt to basically die or stop working and break apart. Both types of RePlay replace the polymers which are present or add new polymers which were not in there to improve the pavement so it will last without potholing or any other distress over a five-year period. What makes us so different is that not only do we penetrate into the asphalt matrix but reapplication on a five-year will result in a road that will last 35 to 40 years that will not require any significant maintenance other than removal of dust, occasional restripe on a ten-year basis or, and get rid of snow and ice. In addition both "waterproof" the road without causing increased slipperiness.

CEO CFO: *How do you counteract some of the skepticism?*

Dr. Chesky: The biggest thing that we are faced with right now is the resistance to change. We provide a complete library of technology testing. We have performed more research and testing on these products in pavement technology to counteract the skeptics would challenge every claim on our products. Our products are formulated to outperform their conventional petroleum counterparts. All of our claims are backed up with independent, 3rd party testing. We use independent testing and experts in the field outside of ourselves to validate our products and our performance. We will not market a product unless it is significantly better than the current products that are in the marketplace. That is how we have overcome the resistance to change or skepticism.

CEO CFO: *Do customers come to you directly or through distributors?*

Dr. Chesky: We have a network of exclusive distributors that solicit, sell, and service their accounts. All are independent contractors trained by our staff. They call on municipalities and private contractors.

CEO CFO: *What about some of your other products?*

Dr. Chesky: We make 40 different products and all are classified as green technology or bio-based materials that literally will outperform their counterparts. They include nontoxic detergent systems which are safe for use around food processing plants and degreasers for general use. We have developed and market an family of concrete care products including a new concrete sealer which penetrates up to 4 " deep and stops any ASR reactions which destroys concrete.

We also provide limited resource recovery and reuse or recycling in the environmental area. We have patented technologies which will remove and reduce polystyrene foam (Styrofoam® which is a Dow chemical trademark,). Polystyrene is a material that remains in a solid waste dump for over 300 years and it will not break down. It is high volume, low density material that occupies a lot of space in the waste dumps and we developed chemistries which actually recover the polystyrene and combine it with tire rubber to make new Super-Pave polymers.

CEO CFO: *With so much opportunity, how do you decide what to take on, what to research?*

Dr. Chesky: We look at several factors. One is that we know what our limitations are for manufacturing and for technology. Secondly, we look at the customers' problems and specifically what their wants and needs are. We then evaluate this versus our technologies for further R&D. Last we look for areas that offer a high barrier to entry, if the market size will support new products, and the potential profitability.

CEO CFO: *How is business?*

Dr. Chesky: Business is superb. We have been told that we are the market leader in this part of the industry and I believe we are. Our business continues to grow at a rate in excess of 30% a year.

CEO CFO: *Where do you manufacture your products?*

Dr. Chesky: All manufacturing is done in Missouri.

CEO CFO: *What are you looking to tackle next?*

Dr. Chesky: We are actually getting ready to do an expansion of our manufacturing because the demand is there. We are working with various municipalities to get rid of their selected solid waste, specifically their polystyrene foam. This has been a major problem that has existed for many years. We cleaned up Lake of the Ozarks in partnership with AmerenUE Electric Company and The Department of Natural Resources with the State of Missouri. Lake of the Ozarks is one of the largest recreational lakes in the country as well as a major power generating source. We processed and removed over two million cubic yards of environmentally expanded dock foam (boat dock) made from polystyrene in a five-year period. We continue to accept these materials from other parts of the country.

CEO CFO: *What surprised you as BioSpan has grown and evolved where you are today?*

Dr. Chesky: What surprised me was both positive and negative. We were surprised that there was a great number of people that were interested in helping clean up the environment, getting rid of the pollution problems our parents and grandparents created while building our country. There has always been a tremendous amount of interest in the products, but what surprised me in a negative way was the resistance to change that we see coming from people that have been in various industries for over 25 to 40 years. It is the old "we have done it this way so why should we change." Attitude.

CEO CFO: *What products are not getting the attention they deserve?*

Dr. Chesky: There are some areas that we do not promote very well and that is our detergent and support materials. As an example we have a corrosion deterrent that is patented and stops rust in its tracks. Ironically it is often used as a primer on metal for some of the state DOT equipment. It is the same material that protects their equipment from corrosion and rust due to the sodium chloride or other snow-melt materials that cause rust, and the damage that is done on radiators and air trucks and things like that. Unless we are actively promoting that, it takes second place to pavement preservation.

CEO CFO: *What is your strategy for the next year or two and how do you continue the growth trajectory?*

Dr. Chesky: We will continue to do some classic marketing. We evaluate what businesses are growing, the demand, and create a marketing plan and an action plan and follow through on it. That includes everything from where we put our research dollars to where we put our advertising monies. You cannot be all things to all people; you need to focus on your area of expertise especially if it is in high demand. That is where BioSpan is today.

CEOCFO: *Why pay attention to BioSpan Technologies?*

Dr. Chesky: The answer is simple. We take care of the next generation in being able to provide products that reduce the tax burden on the individual taxpayer and reduce the operating expenses of most municipalities. We are able to save upwards of 40% of their public works expense and put it back in the budget for additional uses. This is documented through both domestic and international studies over several years

We are also able to maximize the labor that is out there by making our products much more efficient in the way they are applied. We have our own computer controlled spray system that offers precise delivery without wasting product. And other ways to be able to help the end product user save time, labor and money. Our focus is simple, make environmentally Green products that work in the real world that are safe and effective, do not pollute or create problems in the environment but actually help clean it up while saving the taxpayer money.

