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HOUSE OF REPRESENTATIVES COMMONWEALTH *of* PENNSYLVANIA

House Democratic Policy Committee Hearing

Pennsylvania Hemp Production

Monday, May 9th, 2022 | 1:00 p.m.

Representative Danilo Burgos

OPENING REMARKS

- 1:00p.m. Rep. Danilo Burgos, D-Philadelphia
- 1:05p.m. Cherron Perry-Thomas, Co-founder & Director of Social Impact Diasporic Alliance for Cannabis Opportunities

Judy Wicks, Founder *All Together Now*

1:45p.m. Steve Bevan, Founder OCan Group

2:15p.m. Lori Daytner, Vice President of Program Development DON Processing

Remarks and Testimony can be found by scanning the QR Code below:

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Testimony- Cherron Perry-Thomas, DACO

My name is Cherron Perry-Thomas, I'm the co-founder the Diasporic Alliance of Cannabis Opportunities (DACO), a hemp business consultant, and owner of a marketing and sales company which has specialized in hemp finished goods since 2007. When I first started I worked with brands from other countries like Canada and India, with robust hemp industries.

My focus then and now continues to be education, helping to bridge the gap of this once banned crop to help communities understand the wellness and sustainable benefits. We have helped to educate thousands with our outreach, conferences, and other events like "Philly Hempin". On June 3, 2019, we were invited to Harrisburg for a citation recognizing the second week in June "Hemp History Week" in PA. This is a week that I've participated in for the last 12 years nationally, so I was finally glad to see it be officially acknowledged in my state.

Through my work I've seen some of the challenges first hand that face entrepreneurs and farmers in Pennsylvania. The need for resources, education, and a change in policy are needed to help our state become the "Hemp Capital" of this nation. Hemp as food, medicine, shelter, fuel, and clothing, are part of many societies, it should be a part of ours too but, it has been a struggle.

A past client of mine has one of the few processors in the state and they forge a way despite the challenges. As a BIOPIC company, it has one of the few processing facilities of its kind in the country. They have proprietary separation and refinement technology that is able to process green or partially green stalk. They can turn hemp stalks into fiber for textile, hurd for building, or powder for nutrition. When we first started, I encourage a local supply chain but, the only thing holding them back - local hemp, they need about 4,000 acres to operate. Companies like this are forced to buy from outside of PA and the USA because they cannot locate farmers growing for fiber. We need a clearinghouse of resources for those PA farmers and buyers to connect.

I also would like to urge you to support SB 1167 which allows financial institutions and insurance companies to conduct business with "legitimate cannabis businesses," including hemp-derived CBD businesses. The bill will help solve the banking and insurance difficulties that many hemp businesses have faced. Access to banking and insurance services is critical for businesses in Pennsylvania.

We need to see more diversity in PA hemp but this is larger than just hemp. There are **52,000 farms** and 7.3 million acres of farmland in our state. Agriculture is a big business in Pennsylvania but we need to do more to increase the level of diversity from a low 1%. Legislation to support cooperatives, resources, and funding will help socially disadvantaged farmers. With our mix of urban and rural in the state we need to look at legislation and education that can bring future generations and innovation into to the hemp industry which is the agriculture industry.

Please support SB 1167, a PA hemp clearing house and equitable legislation.

I appreciate your consideration.

Cherron Perry-Thomas

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Testimony submitted by Judy Wicks to the PA House Democratic Policy Hearing: Hemp Production in PA May 9, 2022

Introduction

My name is Judy Wicks, and I am the founder of the nonprofit All Together Now Pennsylvania. Previously, I operated the White Dog Café in Philadelphia, which I founded in 1983 and sold in 2000. It was this experience that began my work with local farmers, and though which I gained an understanding of the importance of local supply chains to our long term security - financially, socially, and environmentally.

After the national ban on hemp ended, I founded All Together Now Pa in 2019 with the hope of influencing this emerging industry to better serve the interests of our own citizens rather than allowing this unique opportunity to be dominated by multi-state corporations.

In 2019, we formed the Hemp Local Supply Chain Coalition, made up of hemp farmers, entrepreneurs, researchers, and advocates. All Together Now PA convened numerous gatherings so that coalition members could learn from each other, form partnerships, develop local supply chains, and influence policy. Many relationships were formed as we grew this network of Pennsylvanians dedicated to building resilient, regenerative, and just local economies in our state.

When hemp farmers could not find enough buyers for their crops, we developed separate coalitions for several end uses: Food, Clothing & Textile, Building Material, and Plant Medicine. Through these coalitions, we are working to build local supply chains from farmer to end user, while at the same time seeking opportunity for marginalized rural and urban communities to achieve greater economic justice.

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Our vision is to use hemp as a vehicle for building greater local self-reliance in basic needs. Local production moves wealth and power from outside corporations to our own communities. Local production reduces the carbons of long-distance shipping and decreases our reliance on vulnerable global supply chains.

Hemp History

Hemp is an amazing and versatile plant, which is in the cannabis family along with its cousin, marijuana. Marijuana contains the psychoactive component THC, while hemp contains only .3% or less of THC, and is not psychoactive. Because of its similarity to marijuana, hemp has been misunderstood and often carries the stigma of marijuana even though it is not psychoactive.

Hemp is an ancient crop. According to a pollen study, the hemp plant evolved 28 million years ago on the eastern Tibetan Plateau, and still grows wild across Central Asia. Hemp is one of the oldest domesticated crops. More than 4000 years ago, Chinese farmers began to grow it for oil, and for fiber to make rope, clothing, and paper. Before the federal ban was imposed in 1939, hemp was the fiber crop of choice in Pennsylvania along with flax. In colonial times, clothes in Pennsylvania were largely made from hemp, as was paper, rope and the sails for ships. George Washington, John Adams and Thomas Jefferson all grew hemp. Early drafts of the Declaration of Independence were written on hemp paper, and popular folklore claims that Betsy Ross's flag was made of hemp.

Despite its many uses, the federal government banned hemp from 1937-2018. China is now the world leader in hemp production. Once the center of hemp production in America, Pennsylvania now has the opportunity to revive a hemp industry for its many benefits as food and fiber, with endless possibilities for industrial applications and consumer products. By increasing local self-reliance in basic needs, hemp provides a way to both mitigate carbons and prepare our communities to endure climate change.

Agricultural Benefits of Hemp

There are many agricultural benefits of hemp. The plant absorbs more carbon than trees. It remediates the soil and was even used to remediate the land at the Chernobyl nuclear disaster site. Hemp is commonly used as a

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rotational crop to return plant nutrients to the soil without the use of synthetic fertilizers. Hemp does not require pesticides or herbicides. It naturally suppresses weeds and is pest resistant. Its long root system also makes it drought resistant. Hemp grows fast so that it can produce up to four harvests per year. There is little or no waste in growing hemp since many products can be made from the hemp plant.

Products Made from Hemp

1. Food

Hemp is a highly nutritious source of protein, and contains omega 3, all nine essential amino acids and other nutrients. It can be used as an oil in cooking, as a flour, and as a plant-based milk, which contains more protein and healthy fats than other plant-based milks. Hemp hearts, often used with salads and cereals, provide a complete protein, especially useful for vegans.

Members of All together Now PA's food coalition that produce hemp food products include:

Susquehanna Mills, Muncy, PA - hemp oil

Small Valley Milling, Halifax, PA - hemp flour

- The Hempstead, East Stroudsburg, PA hemp milk (mixed with other local seed milks)
- Bo'De' Regional, Philadelphia making plans to produce hemp milk

Considering the plight of dairy farmers in PA and the increased demand for plant-based milk, growing hemp for milk has the potential to be an alternative product for failing dairy farms.

2. Clothing & Textile

Compared to cotton, hemp fabric is much stronger and more durable. Cotton requires 3 times more land, 10 times more water to grow, and 4 times more water to process. The cotton industry is the highest consumer of pesticides, including those considered carcinogens, while hemp requires no pesticides.

Hemp is a beneficial natural fiber, which can replace environmentally harmful synthetic fabrics, which are currently used in most clothing. Synthetic fabrics such as Polyester, Acrylic, Nylon, Spandex and Acetate are

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made from fossil fuels. Their production is emission intensive and environmentally degrading. Washing these synthetics releases microfibers into the water that kill aquatic organisms. Alarmingly, a recent study found microplastics in the blood of 80% of people tested. This is the result of the large amount of synthetic fabric now used for making clothing in the "fast fashion" industry. All Together Now Pa is working to support the emerging "slow fashion" industry, which is locally and small-scale produced using natural fibers. Our long-term goal is to establish a "dirt-to-shirt" local supply chain connecting hemp farmers to textile manufacturers. There are many hurdles due to the lack of knowledge and infrastructure resulting from the long ban. First, it is essential to have the right seed genetics for appropriate fiber varieties and adapting these seed varieties to Pennsylvania's diverse geography and soil types.

A major obstacle is the lack of processing facilities, which are very costly. BioPhil Natural Fibers located in Phoenixville, PA has opened a hemp processing facility, but additional equipment is needed to prepare the hemp fiber for textile production.

As an affiliate of the nation group Fibershed, All Together Now PA is currently mapping all the businesses in PA affiliated with manufacturing clothing and textiles. We have identified many potential end users of hemp textiles, but without processors in place, farmers are generally not planting hemp for fiber. A network of processing facilities throughout the state is needed to support a robust textile industry.

3. Building Materials

So far, there are at least two sustainable building materials being produced from hemp - hempcrete and hemp wood. There is also work being done to use hemp fiber for acoustical tiles and other products. Hempcrete is a biocomposite, non-structural insulation material made from the hurd, or woody core, of the hemp plant, mixed with lime binder and water. As an installation material it replaces fiberglass and styrofoam, which are toxic and contain fossil fuel. Hempcrete has tremendous insulation capacity and though it is currently more expensive to install than traditional insulation materials, the savings in energy bills are as much as 50%. Although it is not weight baring, hempcrete provides a wall surface, replacing sheet rock. It is moisture and mold resistant, pest resistant and a fire retardant.

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Two members of All Together Now PA's Building Material Coalition -Americhanvre Cast Hemp, located in Allentown and Coexist Build in Blandon, PA - recently completed groundbreaking hemp construction projects. In April, the first hemp house in Pennsylvania was completed by Don Enterprises in New Castle. The hemp was installed by Americhanvre Cast Hemp, owned by Cameron McIntosh, the leader of All Together Now PA's Building Material Coalition. This is just the beginning for Don Enterprises, which plans to develop a hemp processing facility, which will open up western PA to many possibilities for hemp products.

Also in April, Coexist Build, an architect led company dedicated to bringing healthier building materials to the market, unveiled a small hemp cottage which will be used by students at Alvernia University in Reading to measure air quality and energy efficiency over the next two years.

Recently, the International Code Council (ICC) approved hempcrete for the International Residential Code (IRC), and hempcrete is soon expected to be approved as a US building material. There is much promise for establishing a robust hempcrete industry in our state, once the certification is complete and once there is adequate processing facilities, which turn locally grown hemp into useable forms.

In addition to hempcrete, another building material is wood made from hemp, which is stronger than oak. While it takes 20-50 years to grow a tree, hemp grows in 4 months. A Kentucky company called Hempwood, has plans to operate in Pennsylvania and will be purchasing locally grown hemp to manufacture Hempwood in our state.

4. Bioplastic

Research is currently being conducted by students at Thomas Jefferson University in Philadelphia, under the direction of Ron Kander, who is a member of the All Together Now PA hemp coalition, and has connected several of our coalition members to grant money

With a 3D printer, university students have succeeded in making light switch plates made from hemp bioplastic. These switch plates are being used in the Coexist Build hemp cottage.

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There is a big future for replacing fossil fuel-based plastic with hemp bioplastic, which is ten times stronger than steel and lighter than glass. In 1941, Henry Ford made a bioplastic car in which hemp was one of several plant ingredients. And the car ran on ethanol made from hemp.

5. Biofuel

Hemp can be used to produce both biodiesel and ethanol.

6. Paper

Hemp has the capacity to replace trees for paper productions. One acre of hemp can produce as much paper as 4 acres of trees. Hemp uses less chemicals, water, and lasts longer than tree-based paper and it can be recycled more. Currently, there are no hemp paper producers in Pennsylvania, but it could be produced here as it is in New York state.

7. Body Care Products

Hemp can be found as an ingredient in shampoo, body lotion, soap and lip balm currently being manufactured in various US locations. Susquehanna Mills currently produces a hemp hand soap, and there are many other opportunities for hemp based body care products in PA.

8. Plant Medicine

CBD is a plant medicine that comes from the hemp plant. It is used to treat anxiety, depression, insomnia, inflammation, seizures, chronic pain, cancer, and even hair restoration. PA companies who grow the hemp, process it, and create CBD products include All Together Now PA coalition members Wild Fox Provisions in Barto, Pa and Pocono Organics in Long Pond, PA.

Hemp Can Build a Resilient Pennsylvania

Global supply chains are breaking down and will continue to do so due to pandemics, increasingly chaotic weather, cyberwarfare, terrorism, social upheaval and war. Hemp can help us build resiliency by producing basic needs close to home, which will reduce the carbons of long distant shipping, and decrease our reliance on vulnerable global supply chains.

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Building a new hemp economy gives us the opportunity to address economic justice by including and uplifting marginalized rural and urban communities, providing ownership opportunities and green jobs.

In closing, hemp can feed, clothe, shelter, and heal us. Hemp can clean and regenerate our soil. It can pull carbons from the air. Hemp can lead the way to a zero-waste world, a plastic free world - a world in harmony with natural systems. The time is now to build a hemp-based economy in Pennsylvania.

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Monday, May 9, 2022

Philip W. Berezniak, Esq. Lori Daytner

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Industrial Hemp Fiber

Pennsylvania can take a leadership position in industrial hemp production and value-added manufacturing, bringing economic opportunity to our farmers and supporting and regenerating existing manufacturing. DON Processing LLC (DON) has been preparing to solve the bottleneck issue to market development, which is the lack of processing facilities. DON has invested resources for the past four years establishing a growing program, generating research and development for end-use applications, and demonstrating real life uses for the hemp commodities fiber and hurd.

DON Group of Companies

DON Processing LLC is the newest iteration of corporate entities to join the group of affiliated companies operating under the DON moniker. The DON group of affiliated companies all share the same mission initially set forth by DON Processing LLC's co-founder, Chris Lloyd: To generate local development with an emphasis on assisting persons with disabilities to live as independently as possible.

Following medical retirement from the United States Navy in 1994. Chris became active in the Independent Living movement. He joined a group of advocates that offered help to numerous individuals transitioning from an institutional environment to successful, Independent Living. In 1997, Chris's activism spearheaded grant preparation that resulted in U.S. Department of Education funding to create Pennsylvania's 17th Center for Independent Living (CIL). Originally encompassing Beaver, Butler, Lawrence, and Mercer counties, a 2016 expansion added three additional counties in southwestern Pennsylvania (Allegheny, Armstrong and Westmoreland counties). From

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2003 through 2012, Chris served as Chief Executive Director of Disability Options Network ("DON"), the operating entity for the CIL. In 2005, recognizing limited federal financial support offered to CILs, Chris created a second organization, DON Services, Inc., as an additional funding source for Disability Options Network (DON).

DON Services, Inc., is a non-profit corporation, with a current annual budget of over \$25,000,000.00. This company has enabled the CIL to properly address the tremendous need facing persons with disabilities as they transition from institutional living to more independent, self-directed lives. DON Services, Inc., a waiver service provider, offers in-home attendant care under the CSPPPD programs and OBRA, Independence COMMCARE, in addition to Private Pay, Veterans services and ACT 150 programs. This company is currently licensed to provide services in 27 counties which is a geographic footprint stretching from Lake Erie to West Virginia.

In 2011, DON Enterprises, Inc., a 501(c)(3) corporation was added to the DON family. DON Enterprises, Inc., was formed to expand DON's mission to address the need for affordable, universal housing. DON Enterprises, Inc., was designed to assist in funding DON's housing division and has been tasked with originating DON's housing programs and initiatives by creating more appropriate housing options for individuals and families with disabilities.

DON Enterprises, Inc., was the first successful applicant for Federal Home Loan Bank funding in the local area in over 22 years and has an annual budget of over \$2,000,000.00. DON Enterprises. Inc. has acquired over 58 properties, and is currently constructing 17 new homes, with ten successfully completed and sold to date.

Additional acquisitions include the 77,000 square foot 'Central Building', located in downtown New Castle, as well as five additional buildings with over 180,000 additional square feet. All acquired buildings are now various stages of renovation and refurbishment, with several new businesses already occupying space or awaiting completion of renovations to occupy the sites. This has reversed the depletion of businesses in the downtown. In addition, the group launched a DON Reclaim, a construction materials reclamation and reuse retail outlet. DON Reclaim's mission is to support and promote

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conservation while offering employment by selling used and salvaged construction materials at a fraction of the cost of new materials.

DON affiliates are managed and operated by a team of professionals under the organizational entity, DON Management, LLC. DON Management, LLC lends its legal, accounting, insurance, and human resource expertise to the successful operation of every DON entity. While each entity is a stand alone business, the common denominator running through each corporation is the core management expertise offered by DON Management, LLC.

Industrial Hemp Market Opportunity for Pennsylvania

With long-time colleague and co-founder, Philip Berezniak, Chris was determined to invest in and build the processing infrastructure for industrial hemp fiber production. Hence the establishment of DON Processing LLC. Chris and Phil are determined to bring the same assistance to local farmers that the other DON affiliates bring to the local community.

The partners have been active in the hemp industry since the passage of the 2014 Farm Bill allowing hemp production for research purposes. They are excited to bring industrial hemp back to Pennsylvania as a great rotational cash crop that will provide new valuable opportunities and emerging markets for western Pennsylvania's local farmers.

The work has focused on two areas—supporting farmers to learn to grow industrial hemp for fiber and outreach and education to establish off-take agreements to support the investment in decortication.

Pennsylvania is strategically positioned close to the key end-user plastics and automotive manufacturing industries and is a top state for LEED construction. These industries are multi-billion-dollar markets.

U.S. automotive manufacturers are looking at hemp as a light-weighting component in electric vehicles. Plastics manufacturers are exploring hemp fiber and cellulose nanocrystals to "green" their products. Both see the tensile strength of hemp fibers as an exciting replacement which can perform better than current materials. Research is underway but will be accelerated when there is domestic supply.

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Hemp produced in DON's Hemp Test Acres Program is being utilized in research and testing for different end-uses. With our partnership with a team from Thomas Jefferson University led by Dr. Ron Kandor to create cellulose nanocrystals (CNC). These CNC's will be tested in durable plastic products manufactured in Pennsylvania. Dr. Juan Pablo Gevaudan at the Department of Architectural Engineering at Penn State is using DON hemp for cementitious research, potentially for applications in concrete reinforcement. A team led by Dr. Ali Memari, Director of the Pennsylvania Housing Research Center (PHRC) at Penn State is conducting thermal resistance research on hemplime insulation used in Project PA Hemp Home.

Project PA Hemp Home, located in New Castle, is a complete renovation of a blighted residential construction using hemp-based building materials, specifically hemplime and HempWood[™]. The hemplime installation was done by Pennsylvania contractor Americhanvre. The research by PHRC will result in data on the performance of the material and its impacts on heating and cooling costs. Parsons School of Design's Healthy Materials Lab collaborated on the project and will conduct air quality testing. Typical petrochemical-based materials off-gas, creating dust which can be inhaled, ingested, and absorbed. The natural material of hemplime, which is created with hemp, lime, and water, opens the market to grow the materials for homes locally.

Leadership in Energy and Environmental Design (LEED) is a green building certification program. Pennsylvania is one of the top states for LEEDcertified contractors, and the northeast region has the oldest housing stock. Hemp construction materials are in a prime position to capture major market share as their use in retrofits increases in tandem with the dramatically growing interest in sustainable and healthy building materials. There is very high interest to use hemp fiber in multi-billion-dollar markets because it offers improved performance over current materials and has the potential to decrease greenhouse gasses and sequester carbon when used in durable goods.

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Project PA Hemp Home Before Renovation



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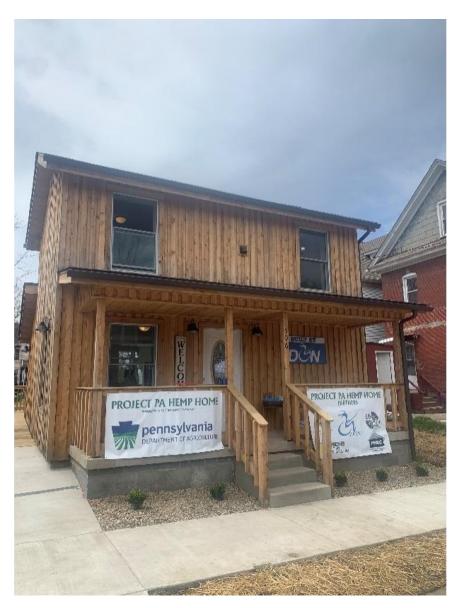


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Project PA Hemp Home After Renovation



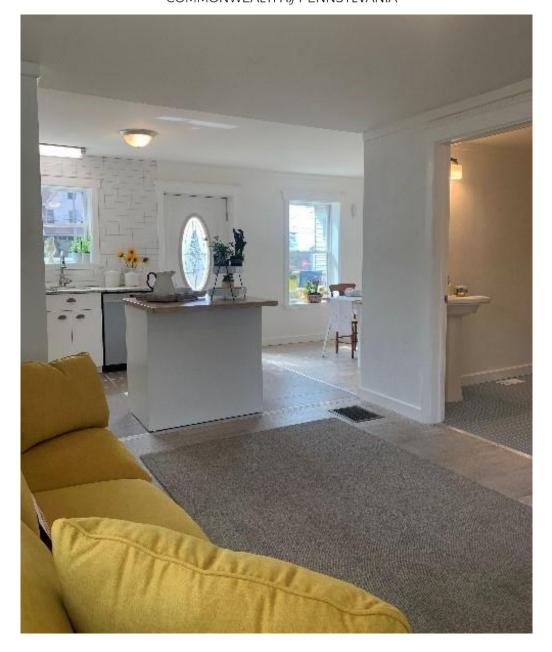
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