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ALL ABOUT THE HEMP PLANT – 10,000 Years of History

Thank you for downloading the FREE eBook “All About the Hemp Plant.” In this eBook, we will take you on a journey back 10,000 years to take a look at how hemp has remained an important plant in many cultures around the world. It’s only recently (over the last 80 years) that hemp has received a bad reputation and been classified as a drug along with Marijuana. Even though hemp is in the cannabis (Cannabis Sativa L) family, the main difference between the two cannabis plants is that hemp has very little TCH (tetrahydrocannabinol), less than .03% of the psychoactive ingredient. Hemp has been grown for thousands of years for many products it can be used for. Let’s start at the beginning of time.

The Ancient Beginning of Hemp

Hemp is an ancient plant used in many cultures throughout time... in fact the earliest records of hemp use and cultivation date back over 10,000 years from the island of Taiwan located off the coast of mainland China, where archaeologists unearthed an ancient village site dating to the Stone Age.

Archaeologists also found scraps of hemp cloth that date to 8,000 BC in Mesopotamia. Then around 6,000-4,000 BC in ancient China the first evidence of hemp seed and extract used as a food was found. The ancient Chinese made their clothes from woven hemp, and used the sturdy fiber to make shoes. Ancient manuscripts are filled with passages urging people to plant hemp so that they will have clothes.

The mulberry plant was also highly regarded because it was the food for silkworms that made silk fabric, which was one of China's most important products. But silk was very expensive and only the very wealthy could afford it. Because of this, hemp material was used for those less fortunate who could not afford silk. For this reason the Chinese called their country the "land of mulberry and hemp." Of all the cultures where hemp is found, China has the longest and most continuous history of hemp production.

The Chinese Legend of Paper Invention – It’s Hard to Believe!

According to Chinese legend, the paper-making process was invented by a minor court official, Ts’ai Lun, in A.D. 105. Like they say, invention comes from necessity. Back in those days, writing was done on bamboo slips and wooden tablets. Imagine having to carry those bulky tablets around... you would have had to be physically fit to be a writer or very devoted to learning.

The first evolution from the heavy tablets was writing on silk... but it was very expensive. So Ts’ai Lun had an idea. What if he used fiber from hemp and mulberry – a less expensive material? He tried many ways and eventually, most likely through trial and error, he found a way to make a pulp out of crushed hemp fiber and mulberry bark. He put the pulp in a vat of water and when the fibers rose to the top he removed them and placed them in a mold. After drying he had sheets, which could be written on.

You would think people would have been excited about this invention. But this was not the case. In fact, he was jeered out of court when he first presented his “paper”. What he did next was what we call a great marketing campaign today... but in those days, it was more like trickery.
He started a rumor that he would use his paper invention to bring back the dead! Then with the help of his friends, he faked his death and was buried (alive) – but here’s the twist. The coffin was rigged... it had a small hole with a bamboo shoot inserted in it so he could breathe while buried.

After he was buried for some time, his fellow conspirators announced that if some of the paper the dead man invented was burned, he would rise from the dead and take his place among the living again. Even though people were highly skeptical, they wanted to give the dead man a chance, so they gathered a sizable quantity of paper and set it on fire. When the man’s friends felt enough suspense had been created, they exhumed the coffin and opened it. To the shock and amazement of everyone, Ts'ai Lun sat up and thanked them for their devotion and faith in his invention.

Ts'ai Lun became an overnight celebrity. He was appointed an important position in court and his invention was given the recognition it deserved. His fame however, became his demise. Because of being rich and powerful, the squabbles of life took over and he found himself in a power battle between the empress and the emperor’s grandmother. When he was summoned to court, instead of appearing he went home, took a bath, combed his hair, put on his best robes and drank poison.

The Chinese kept paper a secret for many centuries, and as intriguing as this story is... Ts’ai Lun may not have been the inventor of paper at all. Fragments of paper containing hemp fiber were discovered in a grave in China that dates back to the first century B.C., which puts the invention of paper long before Ts'ai Lun.

Eventually the Japanese learned the secret of paper and years later in the 12th Century A.D. the Arabs learned how to produce paper. From there, paper mills sprouted up all over Europe.

**Ma - The Ancient Chinese Word for Hemp**

The oldest known Chinese word for hemp is Ma, from Archaic Chuan or Seal Script - 1,200 BC. The character for the Hemp plant basically shows plants drying in a shed or shack.

Stories are told about the Chinese “Hemp Goddess” named “Magu”. Magu’s name combines the Chinese character MA - meaning hemp, with the character GU, a kinship term for woman or goddess, which is also used in religious titles like Priestess.

Magu was a legendary “immortal; transcendent”, associated with the elixir of life, and a symbolic protector of females in Chinese mythology. There are many stories that describe Magu as a beautiful young woman with long birdlike fingernails. Her gown was a pattern of colors, but it was not woven... it shimmered, dazzling the eyes... it was indescribable and not of this world.

Over the course of history in China, hemp found its way into many aspects of Chinese life. It provided clothing and shoes, it gave them material to write on, and it became a symbol of power over evil.
More of the World Discovers Hemp

The Chinese may have been the first people to make use of hemp’s fiber, but in India more uses of the plant were first fully appreciated. Indian mythology says that hemp was present with Shiva at the beginning of the world. It is said that the warriors were known to drink “bhang” to calm their nerves before battle. Hemp was cultivated and used to cure a wide range of illnesses, and of course they also used it to make fabric.

By the third millennium BC, Ancient Egyptian texts show a hieroglyph known as the “shemshemet” to depict cannabis. It is likely that cannabis is one of the first plants ever cultivated, along with wheat and other staple grains. The Egyptians used hemp plant fibers for fabric, rope and cordage.

Cannabis is referenced in the ancient Egyptian pyramid medical texts that cited treatment guidelines and instructions on preparing cannabis. Pieces of hemp material were found in the tomb of the Pharaoh Akhenaten, and pollen on the mummy of Ramses II has been identified as cannabis. Hemp was also used in the construction of the pyramids, not only to pull blocks of limestone, but also in quarries, where the dried fiber was pounded into cracks in the rock. Then they wet the fiber and as it swelled, the rock broke.

The Egyptians had the most advanced medical system in the ancient world, which included written medical guidelines. Medical texts from Egypt indicate that the primary use for cannabis was gynecological to assist women during childbirth.

The debate is still out among some archeologists and scholars as to whether cannabis was widely used. But despite that controversy, the cannabis pollen found in mummies, in addition to their written legacy, serves as physical evidence left behind by the Egyptians.

As Egyptian culture gave way to Arab culture, the medical use of cannabis was incorporated in varying forms. Ninth and Tenth Century Islamic medical texts refer to cannabis as “hashish”, “the royal grain” and “shadanaj”. While Shaaria law strictly prohibits the use of intoxicants, hashish made its way through the years and is still common in Muslim countries today. Modern Egyptian universities continue to research the medical uses of this sacred and ancient plant, upholding a long tradition of their culture.

As time went on, the Scythians carried hemp from Asia through Greece and Russia and into Europe. Later the Arabs brought hemp from Africa into Spain and other ports of entry on the Mediterranean Sea. Hemp fiber was widely used in the Roman Empire, much of which they imported from Babylonia.

Although cannabis was not a major crop in early Italy, hemp seed was a common food. Carbonized hemp seeds were found in the ruins of Pompeii, buried by the eruption of Mount Vesuvius. The Romans helped spread hemp through Europe. The Vikings relied on hemp as rope, sailcloth, caulking, fish line and nets on their daring voyages.
Nature also had a part in spreading the global hemp cultivation. As birds migrated across the world they spread hemp seeds along the way.

The stigma surrounding the hemp plant (cannabis) is truly an aspect of modern history. Weighing a 10,000 year history of use of industrial hemp against an 80 year ban on it raises some interesting questions. Perhaps the ancients knew something we don’t.

Over the last few years, the hemp industry is making a comeback. It was over 70 years ago when hemp was once legal and the government actually promoted and encouraged people to grow it. It was used for many things necessary in the war such as rope, sails, and clothing. When we look back through time... the hemp plant was a staple in many cultures.

Today, we are fighting to gain back the rights to grow the hemp plant. It is a commodity that could provide us with so many products that currently use other precious resources, such as: paper, fabric, plastics, building materials, food source and more. There are actually around 25,000 products that can be made from the hemp plant. Currently, all sources of hemp used in America must be imported from other countries where growing hemp is legal. It’s time to bring it back into American culture.

**Modern Hemp Cultivation and Processing**

Hemp is a bast fiber plant similar to flax, kenaf, jute and ramie. Its valued primary fibers are contained around the long slender stalk that surrounds the hollow, woody core of the hemp plant called the hurd. Although hemp fiber is similar to other bast fibers, it has some major advantages such as: better strength, durability, absorbency, anti-mildew and anti-microbial properties.

Hemp is an annual plant easily grown from seed. Crops grow quickly, so many farmers can get at least 2 crops per growing season. It grows best in well-drained soil that is non-acidic and rich in nitrogen. Hemp plants also require limited pesticides because they grow so quickly and attract very few pests. In northern latitudes, hemp is usually planted between early March and late May. Hemp can grow to an average height of 6 - 14 feet in about four months of growth.

Farmers can tell when the crop is ready for harvesting when the plants begin to shed pollen... usually in mid-August for North America. Harvesting for seed occurs four to six weeks later. High quality hemp fiber is normally ready for harvest about 70-90 days after planting.
Once the crop is cut, the stalks are allowed to rett (removal of the pectin [binder] by natural exposure to the environment) in the field for four to six weeks, weather permitting, to loosen the fibers. While the stalks lay in the field, the leaves decompose allowing the nutrients to return to the soil. The stalks are turned several times and then baled with hay harvesting equipment. The bales must be stored in dry places to keep the moisture away from the hemp stalks. A hemp fiber crop typically yields from 2-6 short tons of dry stalks per acre, or 3-5 short tons of baled hemp stalks per acre.

To get the fiber from the hemp plant, a special machine called a decorticator is used. It has rows of independent teeth and a chopper that pulverizes the stock into fine hair-like fiber. When harvesting hemp for textiles, specialized cutting equipment is required so the machine doesn’t get tangled up with the bast fiber.

The core fiber of the hemp plant is also used. It is called the hurd, which is the middle part, the wood-like core, of the hemp and kenaf plant. It is a highly absorbent material that has many useful properties. A study done by the Navy showed that the core material of hemp and kenaf is one of the most absorbent materials on the planet.

It is twice as absorbent as wood shavings, making it an excellent animal bedding and garden mulch. It also can be blended with lime to create a strong, yet lightweight concrete or plaster sometimes called “hempcrete”. Its high cellulose content also means it can be applied to the manufacturing of plastics, avoiding petroleum used for many products. Like the primary bast fiber, it is biodegradable and has anti-mildew and anti-microbial properties.

Today, hemp is becoming legal in America once again. With so many acres of industrial hemp, America will need a lot of processing plants. Hemp Inc. has the largest decortication plant in North America, located in North Carolina. In the very near future, the plant will be ready to process the many tons that will be grown. In addition, Hemp Inc. is focused on providing processing machinery within the states so processing can be done right on the land, something that is much needed in the industry.

Hemp Fabrics and Fibers

Hemp has been used as clothing fiber for at least 10,000 years. Traditional methods for turning hemp fiber into fabric are eco-friendly, and today many companies still use those methods. Hemp is one of the strongest and most durable of all fibers; it holds its shape well, and it does not require herbicides or pesticides to produce. It is also antimicrobial to protect your skin better.

Once the world’s most ubiquitous fiber crop, hemp has largely been replaced by cotton and other fibers, both natural and synthetic. However, renewed interest in the hemp industry is opening the possibility for new hemp textiles to be produced.

Ancient history has shown us that it has always been possible to make a variety of high-quality, durable fabrics from hemp, either alone or in combination with other natural fibers such as flax or silk. Although
traditionally hemp fabric is rough and sort of scratchy, there are a variety of remarkable delicate textiles that can be produced from hemp.

Linen is a lightweight textile that can be made from pure hemp. Although ‘linen’ refers strictly to cloth made from flax fibers, the standard linen weave is used with other fibers; the resulting textiles are all generally known as linens. Cloth made from hemp is lightweight, durable and breathable, and is excellent in hot, humid conditions.

Hemp is also widely used to make terrycloth, a towel like fabric primarily used as an absorbent. When used in combination with silk, hemp can be used to make taffeta fabric that's used in ball-gowns and wedding dresses. It can also be made into a charmeuse, a lustrous satin that is fabulous for figure-draping lingerie and flowing evening dresses.

Hemp is often blended with cotton to make cloth diapers because of its superior absorption and durability qualities and the increase in the softness of the fabric. Because hemp is antibacterial and antimicrobial, it helps prevent diaper rash and related skin conditions in babies. Basically most knitted fabrics, when blended with hemp, have improved softness.

**Antibacterial Properties of Hemp Fiber**

Lab tests showed that hemp fabric helps kill the ‘staph’ bacteria (staphylococcus aureus). Researchers studied the growth of the bacteria on a textile made from a blend of 60% hemp fiber and 40% rayon, and discovered that 98.5% of the bacteria had died by the time of first testing. The same textile was also infected with Klebsiella pneumonia, and was 65.1% effective in killing the bacteria at first testing. Fabrics made from hemp could be very beneficial for the healthcare industry. Scrubs made with hemp material could help keep bacteria from spreading from one patient to the next and protect the wearer from dangerous bacteria infection. Touching towels, sheets or clothing previously handled by an infected person often transmits staph infections. MRSA (Methicillin-resistant staphylococcus aureus) a deadly bacteria people get in the hospital, is estimated to kill 19,000 people each year in the USA alone. Making fabrics from hemp for hospitals could help keep those nasty germs at bay.

The company responsible for manufacturing the fabric used in this test was EnviroTextiles, whose lead textile engineer, Barbara Filippone, began working with Chinese hemp in the early 1990’s. Now, EnviroTextiles has over a hundred different pure and blended hemp textiles, several of which have been added to the USDA’s BioPreferred Program (a preferred procurement program for Federal agencies and contractors).

Ralph Lauren has used hemp-silk charmeuse produced by EnviroTextiles to make various garments including evening dresses. They have also used several different hemp blends in recent collections such as: hemp, acrylic and cotton to make jerseys, hoodies and sweatshirts; hemp and cotton to make shorts, shirts and trousers; and linen, cotton and hemp for curtains,
Hemp fabrics have also been used by Donatella Versace, Behnaz Sarafpour, Donna Karan International, Isabel Toledo and Doo.Ri. The New York Fashion Week 2008 was a landmark year in which many of these designers showcased their new hemp designs for the first time.

**Hemp Building Materials**

Hemp based building materials are often stronger than petroleum based products. Building materials made with hemp core fiber include plastics, fiberboard, wallboard, roofing tiles, insulation, paneling and even bricks.

The bast (or outer) hemp fibers then can be mixed with mud or adobe to construct strong durable walls for buildings. One of the advantages of using hemp in wall construction is the anti-mildew and antimicrobial properties that help reduce mold and dampness.

Hemp can also be used in building foundations by combining the inner short hemp fibers, lime, sand, plaster and stone cement along with enough water to dampen the materials. It sets in a day and dries in a week. This hemp plaster/concrete (or “hempcrete” as we like to call it) is said to be half as light, seven times stronger, and three times more pliable than other concrete foundations. This means that foundations are less likely to crack from the earth shifting beneath or because of dryness. Also the hemp based foundation weighs half as much. Using hemp fiber to reinforce concrete also reduces the amount of concrete needed.

Today, we see homes being made nearly 100% out of hemp materials. Pipes are made of hemp based plastic, walls can be made of hemp wallboard, insulation can be made from hemp fiber, and much more. In addition, we now have hemp plaster, paint made with hemp oil, hemp carpet, hemp bricks, and even hemp roofing material.

At this time, building homes out of hemp still costs more than traditional building materials, since hemp is still not legal to be grown in America. However in the end, the outcome will be well worth the effort. Hemp building materials are better for you because they filter out mold and mildew, they withstand the test of time the same, if not better than, their non-renewable counterparts, and are much more environmentally friendly.

**Hemp Plastics**

Plastics made from hemp and other organics are non-toxic and biodegradable. Henry Ford used hemp-and-sisal cellulose plastic to build car doors and fenders in 1941. On video, Henry Ford demonstrated that his hemp cars were more resistant to blows from a sledgehammer than steel-bodied cars were.
The basic building block of plastic is cellulose derived from toxic petroleum based compositions. But plastics can be made from plant cellulose. Since hemp is the greatest cellulose producer on earth (hemp hurds can be 85% cellulose), it only makes sense to make non-toxic, biodegradable plastic from hemp and other organics, instead of letting our dumps fill up with petroleum based garbage. Hemp hurds can also be processed into cellophane packing material, common until the 1930’s, or they may be manufactured into a low-cost, compostable replacement for Styrofoam.

Recently Hemp Plastics (in Australia) has used advanced research and technology to develop a new plastic material made from hemp. Hemp plastics can be five times stiffer and two and a half times stronger than polypropylene. It will not cause wear and tear to screws and the molds like glass fibers do and, unlike glass fibers, it does not pose any safety and health risks. All these features make it suitable for the production of durable products.

Hemp is already being used in compressed door panels and dashboards. Car makers such as Ford, GM, Chrysler, Saturn, BMW, Honda, and Mercedes are currently using hemp composite door panels, trunks, headliners, etc. Zelfo Technology (Austrian) created a hemp-plastic resin called Hempstone, for use in musical instruments, loudspeakers, and furniture.

Hemp composites are less expensive than dangerous fiberglass counterparts. Hemp fiberglass, used to replace actual carbon and glass fibers, would be much more cost effective to use and weigh significantly less.

The reason why virtually all European car makers are switching to hemp based door panels, columns, seat backs, boot linings, floor consoles, instrument panels, and other external components is because the hemp based products are lighter, safer in accidents, recyclable, and more durable.

The possibilities are endless with hemp plastics, resins, and bio-composites. Virtually anything can be made from bio-composite plastics. Hemp plastics are already on the rise; it is only a matter of time before we will see the need to grow hemp out-weigh the reasons why it is still illegal in America.

**Hemp Fuel**

Today biofuels such as ethanol and methanol are on the rise. Ethanol is made from grains, sugars, starches, waste paper and forest products; and methanol is made from woody/pulp material. Using processes such as gasification, acid hydrolysis and enzymes, hemp can be used to make biodiesel and both ethanol and methanol.

1. **Hemp biodiesel** – made from the oil of the (pressed) hemp seed.
2. **Hemp ethanol/methanol** – made from the fermented stalk.

Today we are seeing oil wars, peak oil prices, and climate changes from greenhouse gas emissions. We have also seen many oil spills, such as the BP spill in the
gulf a few years ago. This is why it’s more important than ever to promote sustainable alternatives such as hemp ethanol. Hemp turns out to be the most cost-efficient and valuable of all the fuel crops we could grow, and it’s easy to grow on a mass scale that could fuel the world.

There are some questions surrounding the reasons for hemp prohibition. Many believe that oil companies realized early on that hemp biofuel might be a competing fuel source and threaten their oil production.

**What is Hemp Biodiesel?**

Hemp biodiesel is the name for a variety of ester based oxygenated fuels made from hemp oil. The concept of using vegetable oil as an engine fuel dates back to 1895 when Dr. Rudolf Diesel developed the first diesel engine to run on vegetable oil. Diesel demonstrated his engine at the World Exhibition in Paris in 1900 using peanut oil as fuel.

Pressing hemp seeds and extracting the oil make hemp biodiesel. Hemp crops that are domestically grown can be a renewable resource for biodiesel and possibly the answer to our need for renewable fuel sources... and it’s environmentally friendly.

Below are reasons why hemp biodiesel is a good alternative:

- Biodiesel is the only alternative fuel that runs in any conventional, unmodified diesel engine.
- It can be stored anywhere that petroleum diesel fuel is stored. Biodiesel is safe to handle and transport because it’s as biodegradable as sugar, 10 times less toxic than table salt, and has a high flashpoint of about 300 F compared to petroleum diesel fuel, which has a flash point of 125 F.
- Biodiesel can be made from domestically produced, renewable oilseed crops such as hemp.
- Biodiesel is a proven fuel with over 30 million successful U.S. road miles, and over 20 years of use in Europe.
- When burned in a diesel engine, biodiesel replaces the exhaust odor of petroleum diesel with the pleasant smell of hemp, popcorn or french fries.
- Biodiesel is the only alternative fuel in the U.S. to complete EPA Tier I Health Effects Testing under section 211(b) of the Clean Air Act, which provide the most thorough inventory of environmental and human health effects attributes that current technology will allow.
- Biodiesel is 11% oxygen by weight and contains no sulfur.
- The use of biodiesel can extend the life of diesel engines because it is more lubricating than petroleum diesel fuel, while fuel consumption, auto ignition, power output, and engine torque are relatively unaffected by biodiesel.
- The Congressional Budget Office, Department of Defense, US Department of Agriculture, and others have determined that biodiesel is the low cost alternative fuel option for fleets to meet requirements of the Energy Policy Act.
Hemp Seeds and Protein

Hemp seeds have many nutritional benefits that our bodies can take advantage of. It can be made into things like hemp milk, nutty hemp hearts and hemp protein powder.

Hemp seeds contain a high proportion of amino acids in ratios best suited for human assimilation. Hemp seeds also contain approximately 23% protein, perfect for smoothies or snacks. In addition to protein, they are also high in dietary fiber and contain essential minerals including Calcium, Magnesium, Phosphorus, Potassium and Sulphur, yet are low in heavy metals such as strontium, thorium and arsenic.

Humans MUST consume fat in order to obtain an adequate supply of the two Essential Fatty Acids (EFA’s) Linoleic Acid (LA) and Linolenic Acid (LNA). Hemp seeds provides 2.2 times more LA than LNA - 55% Linoleic Acid (LA) and 25% Linolenic Acid (LNA) - as well as Gamma Linolenic acid (GLA), making it the best nutrient for optimal health and prevention of fatty degeneration.

EFA’s are required by the human body in order to maintain hormonal balance, healthy skin, hair, general health and well-being. This is the reason they are referred to as ‘essential’ fatty acids and the rest are merely fatty acids or simply ‘fats.’ Over-consumption of saturated fat is harmful. Advice from scientists and the health food industry generally suggests that most people’s regular dietary habits should include a reduction of saturated fat intake.

Furthermore, hemp seeds are far more valuable, in terms of concentrated nutrients, than soybeans, which are the closest vegan alternative. Tests are currently in progress in regards to the use of EFA’s to treat cancer and help support the immune system of those with the HIV virus.

Research links essential fatty acid deficiency to cancer, cardiovascular disease, autoimmune disorders, impaired wound healing, breast pain, pre-menstrual syndrome, hormonal imbalance, multiple sclerosis, skin and hair disorders. The type of fat in one’s diet is therefore critically important. If we simply increase our intake of EFA’s to 12-15% of our total daily food consumption, this will quicken our metabolic rate, creating a thermogenic reaction that causes fat burn off and weight loss. LA and LNA also substantially shorten time required for fatigued muscles to recover after exercise and they facilitate the conversion of lactic acid to water and carbon dioxide.

Hemp Oil

The principal product made from hemp seeds is undoubtedly the oil. Hemp oil offers a high nutritional value with a 3:1 ratio of omega-6 to omega-3 essential fatty acids, which matches the balance required by the human body.
Purified or refined hemp seed oil is clear and colorless, but it looses the natural vitamins and antioxidants in the processing. Refined hemp seed oil is primarily used in body care products. Industrial hemp seed oil is used in fuel, paints, plastics, etc.

Hemp oil is extracted from the hemp seeds by using a press. The press has a slowly rotating worm-shaft that squeezes out the majority of the oil and separates out the remaining seed matter known as the seed cake. The whole process is done in an oxygen-free environment in order to reduce oxidation.

**Why is hemp oil good for me?**

Hemp is great for cleansing and moisturizing the skin. It is also a powerful source for nutrition. Hemp oil has unique properties that rival oils such as flax seed oil as a dietary supplement. It contains many of the Essential Fatty Acids (EFAs) that the body requires for healthy day-to-day operation. These EFAs are present in the right ratio for optimum absorbency into the body.

It is also a good source of gamma-linolenic acid (GLA), the main valued content of Evening Primrose Oil, which is believed to help pre-menstrual tension (PMT).

Hemp oil can be taken daily either in liquid or capsule form. The oil has a delicious nutty flavor and is great in salad dressings, smoothies, or in any favorite recipe. However a word of caution: due to its fragile EFAs, it should not be used for frying or cooking, but it can be poured over the food once it’s cooked for extra flavor and nutrition.

**What is Hemp CBDs**

Of all the health benefits of the hemp plant, one property of the plant stands out from the rest. A substance called cannabidiol (CBD) has shown nutritional potential for years, yet the taboo around cannabis has kept CBDs off the radar. CBD is a prominent naturally occurring cannabinoid compound found in cannabis (both hemp and marijuana) that has significant medical benefits. CBDs will not make people feel “stoned”; in fact it can actually counteract the psychoactivity of THC. After THC (tetrahydrocannabinol), CBD is by far the most studied natural cannabinoid. According to many researchers, CBD may be the single most important cannabinoid ever discovered.

CBDs have been proven to help with inflammation, pain, anxiety, psychotic behaviors, seizures and spasms, without any side effects.

Scientific and clinical studies highlight CBD’s as a potential treatment choice for a wide range of conditions, including arthritis, diabetes, alcoholism, MS, chronic pain, schizophrenia, PTSD, antibiotic-resistant infections, epilepsy, and other neurological disorders. CBD has demonstrated neuro-protective and neurogenic effects, and its anti-cancer properties are currently being investigated at several academic research centers in the United States.
States and elsewhere.

The difference between using hemp (instead of marijuana) for cannabidiol (CBD) is that industrial hemp is naturally high in CBD and naturally low in THC, whereas marijuana is the opposite (high THC, low CBD). Through a combination of unique cultivation techniques, advanced plant genetics, and cutting-edge growing techniques, an exceptionally high percentage of CBD can be produced naturally and consistently from the hemp plant with only negligible amounts of THC – so it is safe and legal for human consumption.

**Scientific Studies on CBD**

Here’s how CBDs work... According to studies, CBD and other phytocannabinoids influence the brain by interacting with the brain’s very own cannabinoids, called endocannabinoids.

“Generally, phytocannabinoids like CBD can help to restore a more balanced ‘tone’ within the endocannabinoid system,” says Stuart Tomc, vice president of human nutrition for CBD oil supplier CannaVest Corp. (San Diego). “As such, CBD may positively, broadly affect various processes that control brain signaling, via neurotransmitter function, ion channel and membrane dynamics, inflammatory responses, and even gene expression.”

The endocannabinoid system has broad influence over areas of the brain involved in sensations such as pain perception, movement, emotion, cognition, and sleep. This is likely the reason the endocannabinoid system influences the brain’s health conditions.

For all of the ways the endocannabinoid system can influence brain health, CBD’s interaction with the endocannabinoid system could translate into some very significant health effects, and previously published studies so far offer positive indications.

The legal status of CBD is based on the legality of hemp oil. Hemp oil is listed on the U.S. Harmonized Tariff Schedule (with no restrictions on CBD content) meaning that hemp oil is a legal U.S. import.

**Legal Status of Hemp**

Currently, federal law prohibits the farming of hemp in the United States, but it can be purchased as an import. This means the U.S. market for hemp relies entirely on imports from established markets. Imports of hemp from Canada and China equal around $2 billion annually, which makes it obvious who controls the U.S. market supply and will until U.S. grown hemp is once again legal.

**Industrial Hemp Farming Act of 2015** is changing the status of hemp farming in the U.S. The Act amends the Controlled Substance Act to rule out industrial hemp from the definition of “marijuana.” According to the definition, industrial hemp is termed as any part of the cannabis plant in whatever form, with a THC concentration of less than 0.3 percent on dry weight basis. This translates that cannabis sativa, meeting those concentration parameters and grown or processed with the aim of
making industrial hemp, is allowed by the state law, unless the Attorney General determines that the state law is not reasonably calculated to comply with the definition.

There are over 16 states that have passed laws to legalize Hemp Farming. The most recent state to pass a hemp farming law is North Carolina. This opens the door for hemp to be grown on a mass scale right here in the United States once again.

We are seeing history in the making, the rebirth of hemp! America can once again thrive from the benefits of Hemp. Check out the “Hemp for Victory” movie. Be part of the Hemp Revolution and support the legalization of hemp in America.

**Timeline of the Last 300 Years**

Legalizing hemp production will create a lot jobs, help our environment, make people healthy, give them clothes to wear and much more.

If we step back in time, we can see that hemp was once a valuable resource for many cultures. In fact, it was required by law in America to grow it. It’s only in the last 80 years or so that America has prohibited the growth and processing of hemp.

The last really big hurrah was around 1942 when America harvested over 150,000 acres of hemp for the new Hemp for Victory campaign. It was legal to grow or process the hemp plant then. However, this same government banned it after the war around 1957.

Today, America imports well over $2Billion per year in imported hemp products. The crazy thing is that it’s legal to sell and buy if it’s imported from another country that allows legal farming of hemp.

The Hemp Revolution is on the rise. Activists both young and old are helping to educate
people and gain support for bringing hemp back into our world as a valuable resource for many products.

Just like the Marijuana initiatives that spread so quickly, hemp is on that same platform. When you think about it, it just makes good sense to legalize hemp.

You can’t get high from hemp, but you can sure get a lot of useful products from it. Join the Hemp Revolution. Already 22 states have addressed and accepted laws to legalize hemp… it’s just the beginning for the hemp industry.

Hemp Inc. is a company that sees the future, and is building the largest decortication plant to process industrial hemp. It’s located in Spring Hill, NC. and is the largest of its kind in North America.

About Hemp Inc.

Hemp, Inc. is a publically traded company (OTC: HEMP) that was founded in 2008. The company’s long-term goal is to be the leader in the industrial hemp fiber industry in America, which is now estimated to be over $500 Million.

Hemp, Inc.’s mission is to provide green solutions that help make the world a better place to live. We support products that are eco friendly, organic, healthy, and solutions that replace many petroleum-based products.

Today, there is a Revolution happening! It’s the Hemp Revolution! People want to see change in the world... stop the wars, save the planet from pollution, eat organic, ban GMOs, reduce our carbon footprint, produce green solutions and live healthy lives. And, because of all the benefits of hemp, they want to see hemp become legal again.

You can help by taking action. There are several things you can do right now, including: voting for legalization of hemp, writing to your congressmen, senators and governors, donating to organizations working to legalize and educate, and signing the petitions.

Thank you again for downloading our Free gift to you. We are grateful for your support.

Watch Stock Trading Symbol OTC: HEMP