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Executive Summary

Our company's goal is to create a sustainable alternative to single use plastic tampons. Tampons are a huge contributor of waste, and we are determined to create a brand of tampon that is eco-conscious, accessible by anyone, and comfortable.

Environmentally friendly and reasonably obtainable materials will be utilized in the making of our product. The tampon itself will be made from hemp and will be accompanied by a durable applicator that will last and uphold the sustainable identity of the company. The outside packaging will also be environmentally friendly; recyclable cardboard for now, biodegradable material in the future.

Our target customers are women who experience the menstrual cycle; on average this encompasses women within the age range of 12 to 51 years old. Our customers are those who seek to live a more sustainable life, those looking to solve the numerous problems and risks that they face when using menstrual products, or those who buy whatever catches their eye on the shelf. We seek to integrate our product into the lives of all women; those who are keenly aware of their environmental impact, and those who are not. The product will be sold on our own website and in CVS chain stores.

Though our product is a new take on an item used on the daily by countless people, it faces strong competition, as it's used in the same way the top competitors in the market are used. What sets Hempons apart from other products is its unique composition. Very few menstrual products focus upon creating new solutions and instead leave products unchanged under the guise of necessity.

We also want to bring attention to the availability of menstrual products themselves. These items are essential products for women and should be available to all who need it, regardless of identity. We strongly disagree with any tax on feminine hygiene products and look towards a future where our product can be distributed cost-free so that women can have access to the essential items they need. Ultimately, the creation and distribution of Hempons is one step closer to a greener Earth and a safer environment for all living beings.



Competitors

There is a current increase in demand for our product and will be a demand for a very long time. Since we already have a pretty good idea for what our targeted customer group is, our marketing strategy should be focused on how to make our product unique compared to competitors. The most obvious differentiation is the material we are using as hemp has not yet been employed for feminine products and is an up and coming material in general. We have to find a way to convince consumers that hemp is a better alternative to current feminine product materials such as cotton. This already gives our product a leg up as hemp is more eye catching than other materials, especially since it has never been seen in the tampon industry.

Most competing tampon and pad brands have products made from cotton and rayon as well as synthetic fibers. The average price for tampons is about \$7 per box. According to CNN, there is a demand for more disclosure of ingredients in tampons as it is not required to be included in packaging. Because our product's most appealing quality is it material, we can easily fulfill this need for transparency

Two of our top competitors are Albaad and playtex.

1. Albaad

Albaad is one of the top sustainable brands which promises an environmentally responsible product. They have invested about 180 million dollars into building a new plant for the manufacturing process of new ecologically friendly products. Albaad also prides its reliability and claims to be trusted by many global brands

2. Playtex

Playtex is one of the most well known brands that targets a younger audience. Their marketing strategies seem to be targeted towards a very young age with a website that provides information about periods and tampons. Additionally, the website includes a "for parents" section. Although the colorful branding and claim to be the "#1 athletic tampon" may catch the attention of some, customers have complained that playtex scented tampons cause irritation

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Intellectual Property

Patents are limited to specific design features such as the ones listed below

- 1. Edgewell Personal Care Brands, LLC
 - Ergonomic tampon applicator

"A tampon applicator barrel includes an insertion tip at a forward end of the barrel, a main body section that extends from the insertion tip, and a reverse taper section that is joined to the main body section so that the main body section is between the insertion tip and the reverse taper section. The main body section tapers toward the insertion tip section. The reverse taper section tapers in a direction away from the insertion tip section. A finger grip section extends from the reverse taper section to a plunger receiving end of the barrel opposite the forward end. The barrel is straight from the forward end to the plunger receiving end that receives a plunger."

2. Johnson & Johnson GmbH

• Tampon with continuous groove forms

"The present invention relates to an intravaginal tampon for feminine hygiene includes a generally cylindrical absorbent pledget and a withdrawal element operatively connected to the generally cylindrical pledget proximate to the withdrawal end thereof. The absorbent pledget includes a mass of fibers compressed into a self sustaining shape and a sheet-like fluid-permeable cover substantially enclosing the mass of fibers. The absorbent pledget has formed thereon or therein at least one continuous groove form comprising a plurality of substantially longitudinal groove segments linked only to form a turn located alternatively proximate the insertion end and withdrawal end and wherein the continuous groove form extends around at least 180° about the circumference of the generally cylindrical absorbent pledget."



Legal Requirements

1. Tampon Requirements

Premarket Notification

A 510(k) form must be filed with the FDA, and the product must be granted a substantial equivalence determination from the FDA before beginning marketing. This form includes: a cover sheet, proposed labeling, a summary report that contains a description of the device and its use, description of the design of the product, device characteristics, performance aspects, methods used for risk analysis, and a statement of either conformity to FDA standards or that the device relies on a specific standard through testing. The FDA does not require clinical studies for this approval; however, it would be recommended for Hempons since hemp is not similar to materials currently marketed in tampons.

• Warning Label

The warning label must contain information clearly printed about the risks of TSS, and the different levels of absorbency. The risk of toxic shock syndrome due to tampon use, warning signs of TSS, what to do if the signs appear, groups at high risk, and the risk of death must be explicitly stated. All package labels must list the absorbance ranges with an explanation of how to correspond the term to the range, and how to make comparisons to allow the selection of minimum absorbance needed.

• Absorbency Testing

Tampons must go through absorbency testing rounded to the nearest 0.1 grams. The sample from the batch must have consistent outcomes with at least 90% within the listed absorbance range.

2. Hemp Requirements

• 2018 Farm Bill

The 2018 Farm Bill legalized the agricultural production of hemp in the US. In this bill hemp is defined to be Cannabis sativa L. with a delta-9 tetrahydrocannabinol concentration less than 0.3%. 48 States have made legislation to either allow cultivation research or establish hemp production programs. The state statutes and public acts vary by state. Idaho, Mississippi, and the District of Columbia do not allow cultivation of hemp.

• California Requirements

Under the California Food and Agriculture code §81000 to 81010, a seed certification program and grant program for research for higher education were established, and hemp cultivation for both commercial and research purposes are allowed and overseen by the Industrial Hemp Advisory Board within the California Department of Food and Agriculture. As long as the established producers have followed the guidelines put forth by the state, it is completely legal to sell hemp tampons.



Customers and Pricing

1. Age Demographic

The age demographic of our customers is women aged 12 years old to 51 years old. ¹ This is the average age of the beginning of menstruation to the beginning of menopause when menstruation stops. By examining the US Census Data from 2019, this is approximately 90 million women. Approximately 70% of women are reported to use tampons, so according to our data 63 million women in the US use tampons. This is a huge amount of potential customers, and with sustainability and a desire to reduce individual carbon footprints, our eco-conscious product will be a preferable alternative to unsustainable tampon brands.



Table 1: Resident Population of the United States by Sex and Age (July 2019)

¹Table 1: <u>https://rb.gy/e7tcmg</u>



2. Global Revenue in the Feminine Hygiene Market

The feminine hygiene market is an exponentially growing market. Its growth has been attributed to a few factors; rising female literacy and awareness of menstrual health, rising disposable income of females, and increasing female population and urbanization. According to CAGR's 2020 annual expected growth rate of 5.8%, by 2025 the global feminine hygiene market should reach about 27.7 billion. COVID-19's effect on the economy of the feminine hygiene market varied between countries. In India "over 82% of feminine hygiene product manufacturers had to pause operations in India due to social distancing norms and lockdown", reported India's Menstrual Health Alliance (Markets). On the contrary, in the US when hoarding became an issue many "consumers with lower incomes [faced] the consequences of hoarding, leading to a price rise during the lockdown period" (Markets). With rising female literacy in the US and around the globe, the feminine hygiene market is projected to grow exponentially.

Table 2: Global Comparison of Revenue Generated from the F.H Market Top 5 Countries



²Table 2: https://rb.gy/awl1bz



3. Estimating Manufacturing Costs

Manufacturing costs for hemp is significantly cheaper than cotton. According to Fred Cooke, an agricultural economist at Delta Research and Extension Center in Stoneville Mississippi, it costs the average farmer "60 cents to produce 1 pound of cotton" (). By this statistic, one ton of cotton costs \$120. Even compared to the price of high price/ high yield hemp, the manufacturing cost of cotton is still over 2 times more expensive³. With the growth of the hemp manufacturing industry that will eventually come with the legalizing and destigmatizing of the hemp crop and product, the already low price of hemp will decrease more. Based on the statistics referenced above, our product needs to be competitively priced but reasonable; therefore selling our product around the average price of \$7 is the best course of action.

Table 3: North Dakota's Estimated Costs and Returns for Hemp

Сгор	Average yield	Average price	Total revenue	Total costs	Net returns
	Per acre	Dollars/unit		Dollars/acre	
Low-price/low-yield hemp ¹	14.3 bushels;	\$5.51/bushel;	179.96	174.63	5.33
Average hemp ¹	2.5 tons 19 bushels;	\$40.44/ton \$6.16/bushel;	248.13	174.63	73.49
High-price/high-vield hemp1	2.75 tons 23.8 bushels	\$45.96/ton \$6.80/bushel:	316.29	174 63	141 65
ingh phooningh yield hemp	3 tons	\$51 47/ton	510.25	.14.00	141.00

Table	14–	-Estimated	costs	and	returns	for	hemp	and	other	crops	in	North	Dakota,	1998
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³Table 3: <u>https://rb.gy/gkbxtk</u>

Distribution and Sales

The hemp-based product market is gaining momentum, and some estimate that it may begin to grow at an exponential rate⁴.



The method of distribution would be through a hybrid internet and through in-person retail, as both have considerable benefits. Using the internet, or e-commerce, grants the ability for outreach to people in different locations and lately has had remarkable growth in the market. Additionally it is a cheap option because less people are hired and the business is still maintained. Physical retail holds promise in gaining customers who are willing to try something new. This approach also utilizes the unique experience of physical shopping and allows easier explanation and marketing to other potential consumers on the benefits of using Hempons over others.

To delve deeper into the specifics, internet retail would be done through our own website. Eventually, after the product becomes more readily available and popular, the online market would expand beyond our website to other retailer stores that are willing to accept us as a supplier. People have become more dependent on e-commerce, especially during the COVID-19 outbreak that started back in early 2020⁵. Because people are limiting outside contact, many are resorting to e-commerce to get goods and groceries. Those who do not have the ability to shop retail are benefited by shopping within the comfort of their home.

⁵Table 5: <u>https://www.the-future-of-commerce.com/2020/05/13/covid-19-e-commerce-data/</u>



⁴Table 4: <u>https://www.grandviewresearch.com/industry-analysis/industrial-hemp-market</u>



Table 5: Impact of COVID-19 on E-Commerce

One important aspect to note when setting up a product for retail in chain stores is the product acquisition process, especially for stores that show genuine interest. Though the hemp industry is fairly new and unexplored to many mainstream stores, there are a couple of retail chains that have expressed interest in selling such products, including Walgreens, Sprouts, and CVS (Mitzner).

We will only be choosing one chain to target in the product acquisition department because retail is not the primary focus in our hybrid distribution plan. Of the three potential stores, CVS is a more likely decision. Sprouts prides itself as a farmer's market, so less people may be inclined to buy sanitary products from such a retail store. Walgreens and CVS are both highly renowned drugstore chains in the United States, but Walgreens prides itself on having relationships with smaller and diverse businesses that are located in the United States. If we were planning on expanding our business to the international level, Walgreens would not be a good fit for our business. Therefore, CVS would be the better option. (Requirements, CVS)

Chain retail would become the next priority. CVS's product acquisition process is maintained at their website, where a number of rules, links, and pdfs are sorted into a number of categories for new suppliers to follow. After applying our product under feminine hygiene, we would follow all mandatory registration forms, requirements, and meet numerous regulatory compliance goals that would make us eligible for becoming a supplier of our product. In addition, CVS uses a website called RangeMe for buyers to discover new products and give feedback to suppliers. This allows us to connect with consumers while simultaneously allowing our product more visibility.



Manufacturing Process

1. Location

Hempons will be manufactured domestically while sales are only done in the United States. Finding a country that has established growers, and where commercial use of hemp is legal, and where the cost of manufacturing and import is lower than manufacturing in the US would provide a substantial obstacle on it's own. Additionally, we would have to work around import and export laws for both countries which become more complex when moving hemp products. Finally, since Hempons will only be sold in the US, the simplest way to manufacture them is domestically as it cuts out additional steps in the process. Manufacturing elsewhere would cause these additional obstacles that would not be worth a small difference in cost while the product is still growing. Eventually, Hempons will be manufactured internationally once they are sold internationally. At that point it will be more cost efficient to manufacture outside of the US since the company will already be complying to import and export regulations. This will also allow more sustainable materials to be used for the applicator and packaging.

2. Hemp Insert

The hemp fibers will be brought in from an established grower and processed into three different forms after all of the raw fibers will be bleached and sterilized. One batch of fibers will be taken and made into long rectangles still in the raw form to create the inner portion of the tampon. Another portion of the fibers will be woven and made into rectangle strips to wrap the inner portion to keep the fibers from the unwoven material from separating. The final portion of the hemp fibers will be woven into a string that will be used for removal. The raw hemp rectangles will be folded to create the thickness of the tampon, the woven material will then be wrapped around the inside portion, and the string will be tied through it. This will then be sewn down the center to hold the product together. It will then be folded into a W shape and compressed into a cylinder. These will then be sent to packaging where they will be individually wrapped and packaged.

3. Reusable Applicator

While the product is still in the beginning stages of growth the applicator will be made from silicon and will be made through molding. When the move to international manufacturing is made the applicator will be made from a high density polyethylene that has been developed by two German scientists. This polyethylene can be chemically recycled easier and is derived from plant oil, and will still use a molding process.

Conceptual Design of Product Packaging



side * 2

HEMPONS

- · recyclable candboard packing box
- · textured candboard : medium grain
- top of box has easy to open tab
- · barcode on bottom of box' for easy scanning and distributing
- Inside box is a recyclable paper that explains how to refill the applicator and how to insert the product.





back

Text on Image: -Recyclable Cardboard Packing Box -Textured Cardboard: Medium Grain -Top of Box has easy to open tab -Barcode on the bottom of the box for easy scanning and distributing -Inside the box is a recyclable paper with instructions on how to refill the applicator and how to insert the product



Conceptual Design of Applicator



Text on Image: -Reusable Applicator -Step 1: Remove Piece #2 -Step 2: Insert HEMPON into Piece #1 -Step 3: Insert Piece #2 and push in when ready to insert HEMPON -Step 4: Wash Piece #1 if necessary -Step 5: Return the cover for easy, compact storage



Materials

Tampons are most commonly made out of cotton, rayon, and synthetic fibers; which can contain toxins such as dioxins that harm the reproductive and immune systems. Polyester, polyethylene, polypropylene, and fiber finishes are also commonly found in tampons but are not biodegradable. Hemp, on the other hand, is a much better material for both the body and the environment. It is highly absorbent and naturally antimicrobial and anti-fungal. Hemp is also resistant to staph bacteria, which can help prevent toxic shock syndrome. Hemp products are also more sustainable to produce than cotton because hemp grows a lot faster and needs less room to grow.

Because our product is built on sustainability, we decided to substitute single-use applicators with reusable ones to help offset the 7 billion tampons that are discarded yearly. The reusable applicator will be made from silicon which has already been FDA approved and is more durable compared to disposable applicators. Although silicon may cost more upfront, customers will end up paying much less overall as they will only need to by the hemp refills moving forward.

1. Common Materials

Rayon is a synthetic made from sawdust and can produce byproducts of dioxin and carbon disulfide, a known reproductive toxin. Polyester, polyethylene, polypropylene, and fiber finishes are other common materials in tampons which are not biodegradable Although cotton can be an adequate option for tampons, hemp is a much better material both for the body and the environment. With cotton, there is a chance of putting harmful and unknown toxins into the product.

2. Hemp

Hemp is highly absorbent and is naturally antimicrobial, anti-fungal. Hemp is also resistant to staph bacteria which can lead to toxic shock syndrome. Hemp additionally has a larger surface area making it more absorbent than cotton. Hemp products are more sustainably-grown than cotton because hemp grows a lot faster and needs less room

3. Applicator

The reusable applicator will be made from silicon which has already been FDA approved. Silicon is much more durable compared to plastic applicators used by most tampon brands. Because our product is built on sustainability, we decided to substitute single-use applicators with reusable ones. We based this part of the product off of other sustainable companies such as thinx reusable applicators. Reusable tampons are a



much more sustainable option than single-use considering about 7 billion tampons are discarded each year. Considering \$3 billion a year is spent on sanitary products, the customer will save money with a reusable applicator.

4. Packaging

The external packaging will be made from recyclable cardboard. Although there are more sustainable options such as mushroom packaging, we are starting as a small brand and should focus on the product itself. Cardboard packaging has the same "earthy" look of many environmentally friendly products. Additionally, cardboard is cheap and easy to obtain. Although it may not be as cheap or durable as plastic, we still want our packaging to be on-brand with the goal of our product and to uphold our sustainable image

Bill of Materials

Component	Materials
Tampon	Hemp
Applicator	Silicon
Packaging	Cardboard



Testing and Quality Assurance

1. Testing

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There are a multitude of tests that the tampons can be put through in order both to assure safety to the environment and future users. One that holds prominence is chemical testing. Some research indicates that the top brands of tampons may have underlying carcinogens and chemicals that could cause bodily harm (Singh). Despite their widespread usage, many underlying problems are oftentimes not overlooked.

Another form of testing that can be utilized are clinical trials. Clinical trials allow the tampons to be used in a "real environment," which is arguably one of the most reliable and accurate ways to test whether the tampons function correctly (DecisionAnalyst). The main function of these tests is to see how long they can safely last while also allowing us to note if any improvements are possible or needed. Subjects for the tests would volunteer and are compensated for their time.

The most humane tests are to be used upon Hempons. Those that are unethical, such as animal testing, are to be avoided under all circumstances.

2. Further Quality Assurance

One method of reassuring quality in the product is to get FDA approval. Because the FDA is founded as a government entity, it gives higher credibility and may increase the number of consumers who are willing to purchase the product. FDA approval is extensive, requiring the product to meet a number of criteria and meeting a certain standard. Once the products meet the numerous requirements, ranging from toxicology reports, to more clinical studies, to specific labels, it will gain approval, which would further support the trustworthiness of the chemical testing and clinical trials that are mentioned before (FDA).

To further assurance in quality, the product can be thoroughly inspected during manufacturing. Random samples can be selected from batches of the produced product to ensure quality while simultaneously keeping up productivity. If a certain number of samples do not meet the standard, then an opportunity is given to find out the root cause of the problem.

References

- Albaad | wet wipes and feminine hygiene products. (n.d.). Retrieved March 17, 2021, from https://www.albaad.com/
- Brooks, N. L. (2001, October). Characteristics and Production Costs of U.S. Cotton Farms, SB-974-2. Retrieved 3/1/2021, from https://www.ers.usda.gov/webdocs/publications/47148/28495_sb974-2_1_.pdf?v=9058 #:~:text=Producing%20a%20pound%20of%20cotton,per%20pound%20for%20total%20co sts
- Center for Devices and Radiological Health. "Menstrual Tampons and Pads: Information for Premarket Guidance." U.S. Food and Drug Administration, FDA, www.fda.gov/regulatory-information/search-fda-guidance-documents/menstrual-tampo ns-and-pads-information-premarket-notification-submissions-510ks-guidance-industry.
- "CFR Code of Federal Regulations Title 21." Accessdata.fda.gov, www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm?fr=801.430.
- DecisionAnalyst. (2020, February 25). Product testing. Retrieved March 17, 2021, from https://www.decisionanalyst.com/services/producttesting/
- Department, P., & 13, N. (2020, November 13). U.S.: Most popular Tampon BRANDS 2011-2020. Retrieved March 17, 2021, from https://www.statista.com/statistics/287354/most-used-brands-of-tampons-in-the-us-trend/
- Devaney, S., Chan, E., & George, A. (2020, May 28). The best eco-friendly sanitary brands worth trying now. Retrieved March 17, 2021, from https://www.vogue.co.uk/article/best-eco-friendly-sustainable-sanitary-brands-products
- Fishman, Z. (2021, February 17). New plant-based plastics can be chemically recycled with near-perfect efficiency. Retrieved February 24, 2021, from https://academictimes.com/new-plant-based-plastics-can-be-chemically-recycled-with-n ear-perfect-efficiency/#:~:text=Politics%20%26%20Society-,New%20plant%2Dbased%20 plastics%20can%20be,recycled%20with%20near%2Dperfect%20efficiency&text=February %2017%2C%202021.
- Guide, S. (2021, February 12). 7 top Reviewed natural & Organic TAMPON Brands. Retrieved March 17, 2021, from https://www.thegoodtrade.com/features/top-reviewed-natural-organic-tampons



- Joy, Q. (2015). The-facts--period-: United States: Girls HELPING GIRLS. PERIOD. Retrieved March 17, 2021, from https://www.girlshelpinggirlsperiod.org/the-facts--period-
- Kounang, N. (2015, November 13). What's in your pad or tampon? Retrieved March 17, 2021, from https://www.cnn.com/2015/11/13/health/whats-in-your-pad-or-tampon/index.html
- Markets and Markets. (2020). Feminine hygiene products market. Retrieved March 17, 2021 https://www.marketsandmarkets.com/Market-Reports/feminine-hygiene-product-market -69114569.html
- Mindy Bridges, Gretchenn DuBois. *State Industrial Hemp Statutes*, www.ncsl.org/research/agriculture-and-rural-development/state-industrial-hemp-statute s.aspx.
- Mitzner, D. (2019, August 07). Retailers see promise in cbd and hemp products. Retrieved March 17, 2021, from https://www.forbes.com/sites/dennismitzner/2019/08/06/retailers-see-promise-in-cbdand-hemp-products/?sh=6cb6f6d2411f
- New tampon testing reveals undisclosed carcinogens and reproductive toxins. (2018, June 05). Retrieved March 17, 2021, from https://www.womensvoices.org/2018/06/05/new-tampon-testing-reveals-undisclosed-carci nogens-and-reproductive-toxins/
- Playtex. (n.d.). Retrieved March 17, 2021, from https://www.playtexplayon.com/period-faq/period-faq
- ReportLinker. (2020, July 22). Global feminine hygiene products industry. Retrieved March 17, 2021, from

https://www.globenewswire.com/news-release/2020/07/22/2065731/0/en/Global-Feminine-Hygiene-Products-Industry.html

Requirements. (n.d.). Retrieved March 17, 2021, from https://cvssuppliers.com/requirements

- Singh, J., Mumford, S.L., Pollack, A.Z. *et al.* (11 February 2019). Tampon use, environmental chemicals and oxidative stress in the BioCycle study. *Environ Health* 18, 11. Retrieved March 17, 2021, from https://doi.org/10.1186/s12940-019-0452-z
- Smith, G. (2021, March 02). Hemp tampons coming soon. Retrieved March 17, 2021, from https://sweetjanemag.com/hemp-tampons-coming-soon-the-first-step-in-earth-and-canna-f riendly-menses/



USDA. (1999). Industrial Hemp in the United States: Status and Market Potential–Potential U.S. Production and Processing. Retrieved March 17, 2021, from https://www.ers.usda.gov/webdocs/publications/41740/15859_ages001ei_1_.pdf?v=0#: ~:text=With%20estimated%20production%20expenses%20of,%24604%20per%20acre%2 0(McNulty)

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- U.S. Food and Drug. (n.d.). The facts on Tampons-and how to use them safely. Retrieved March 17, 2021, from https://www.fda.gov/consumers/consumer-updates/facts-tampons-and-how-use-them-safe ly
- Us2330257a process for making tampons. (1943, September 28). Retrieved February 23, 2021, from https://patents.google.com/patent/US2330257A/en
- Us4642108a tampon for feminine hygiene and a process for its production. (1987, February 10). Retrieved February 23, 2021, from https://patents.google.com/patent/US4642108A/en
- 3DEXPERIENCE platform. (n.d.). Retrieved February 24, 2021, from https://make.3dexperience.3ds.com/processes/introduction-to-molding-processes#:~:t ext=Molding%20is%20a%20manufacturing%20process,or%20glass%20material%20is%2 0poured