

Making of Organic Cosmetic (Soap) using Fruit Waste

Anoushka Das*, Lisha Deb**, Lavanya Behara***, Shreosi Bose****, Ishan Baral*****, Ridip Basak*****, Danie Kingsley J*****

*(Department of Biotechnology, VIT University, Vellore Email: anoushka2506@gmail.com)

** (Department of Biotechnology, VIT University, Vellore Email:lisha.deb2@gmail.com)

*** (Department of Biotechnology, VIT University, Vellore Email:lavanyabehara2000@gmail.com)

**** (Department of Biotechnology, VIT University, Vellore Email:shreosibose157@gmail.com)

***** (Department of Biotechnology, VIT University, Vellore Email:secondperson14@gmail.com)

***** (Department of Biotechnology, VIT University, Vellore

Email:ridipbasak555@gmail.com)

***** (Department of Biotechnology, VIT University, Vellore

Email: daniekingsley@gmail.com)

Abstract:

Primarily, as daily utility resource, soaps are used since time immemorial. However, what exactly are soaps? Chemically, soaps are long-chain fatty acid salts used in numerous cleaning and lubricating products. In a domestic setting, for bathing, washing, and other types of housekeeping, soaps are used. In industries, soaps act as thickeners (substances increasing the viscosity of a liquid), components of some lubricants (substances used for reducing friction between two surfaces in contact), and precursors to catalysts (substances used to increase the rate of reaction). Since soaps have a significant part in our daily life, it has become an integral part of our lifestyle.

Many people do not prefer the use of chemical soaps for one significant reason: they have harmful effects on the skin; significantly increase the ageing of the skin, make it dry, rough, and make the skin peel off in the long run. Triclosan, used in antibacterial soaps, deodorants, and toothpaste can affect the body's hormone system. 1,4-dioxane, a contaminant found in shampoos, body wash, and soaps are carcinogens. Organic soaps can be a healthier alternative to these chemical-based soaps as they are devoid of such chemicals. Not only are they suitable for human skin but the environment as well.

They are easily consumable and producible. These soaps tend to have additional skin healing properties due to the presence of natural ingredients. Organic soaps are natural to dispose of and loaded with antioxidants such as phenolics and carotenoids.

Ayurvedic skincare:

Ayurvedic Skincare might be reasonable for use in Anti-maturing cream, sunscreen, and universally useful healthy skin items. Ayurvedic healthy skin adapted from restorative practices that started more than 5,000 years back in India. Ayurvedic medication and its practice depend on Indian philosophical, mental, ordinary, and restorative understandings. The more significant part of the ayurvedic healthy skin items contains the accompanying herbs—aloe vera, almond, avocado, carrot, castor, earth, cocoa, coconut oil, cornmeal, cucumber, catch tree, emu oil, Ginkgo Biloba, ginseng, grape seed oil, ground almond and pecan shell, horse chestnut, witch hazel, and nectar.

Ayurvedic medication uses *Phyllanthus Emblica* (amla, Indian gooseberry) and normalized concentrates of this have a strong and extensive range of cancer prevention agent action.

The project aims to make an organic cosmetic product utilizing fruit waste as a healthier alternative to the chemical-based soaps as the organic soaps are devoid of such chemicals that are not only good for the human skin but the environment as well. The price should also be of a moderate amount to be readily available to everyone.

Keywords — Long-chain Fatty acids, Triclosan, 1,4-dioxane, Antioxidants, Phenolics.

I. INTRODUCTION

Organic product squanders one of the primary wellsprings of city squander. The cancer prevention agent power and pure phenolic substance (TPC) of lipophilic and hydrophilic parts in squanders (strip and seed) of 50 natural products got evaluated to investigate the capability of organic product squanders as common assets of bioactive intensify. The outcomes indicated that distinctive organic product advancements had assorted cell reinforcement strength and the variety was exceptionally huge.

Catechin, cyanidin 3-glucoside, epicatechin, galangin, gallic destructive, homogentisic destructive, kaempferol, and chlorogenic destructive founded in these advancements of the first bioactive blends that were perceived and estimated. Notably, the estimations of ferric-diminishing cell reinforcement power (FRAP), Trolox comparable.

Cancer prevention agent limit (TEAC), and TPC in the precipitates were higher than in pulps. The outcomes demonstrated that natural product deposits could be cheap and promptly accessible assets of bioactive mixes for use in the food and pharmaceutical ventures.

Natural cleansers are environmentally friendly because its plant-based fixings do not have pesticides or compound manures. There is a considerable amount of composing on why these substances are

destructive, so we are merely going to give a few models. Pesticides and fake manures can slaughter useful bugs alongside the ones that harm crops, they can hurt different creatures and plants, they can defile soil and water, and they can make individuals wiped out if uncovered.

In the wakening of experiencing every one of these reasons, it is anything but difficult to perceive any reason why natural cleanser is an extraordinary decision. At the point when we began, it was likewise the start of a more prominent creator development, as makers and shoppers move back to littler, progressively neighbourhood, and increasingly exceptional items. The natural cleanser is maybe the quintessential little cluster nearby item.

II. MATERIALS REQUIRED

The essential organic soap making supplies will include some:

- oils, olive, sunflower, coconut, vegetable shortening
- butter, shea, mango, cocoa
- additives can include, pomace, seeds (strawberry, raspberry, apricot) as exfoliants
- herbs and spices serve as dye
- Sodium hydroxide (lye)
- Water
- Oils and fats
- Glycerin
- Antioxidants

- Soap fragrance
- Essential oils
- Botanicals
- Solid oils measured in a stainless steel pan.
- Liquid oils measured in a bowl
- Moulds for the soap to take shape in
- stick blender connected
- Digital thermometer
- Sodium Hydroxide and water measured into heat-proof containers: glass, pyrex, or polypropylene plastic
- Utensils: stainless steel spoon for stirring the lye solution, a small fine-mesh strainer, and a flexible spatula
- Fragrance and extras at the ready: essential oil, Grapefruit Seed Extract, and Orange zest

III. PRODUCT DESCRIPTION

Name of our Product: MELLOW ORGANICS

Logo:



Vision Statement:

Our mission is to ensure the complete satisfaction and well-being of our customers, promoting innovation and social responsibility.

We aim to be a company recognized by the quality of our beauty products and to be one of the most influential natural skincare companies in the world.

The holistic approach to skin and soul care is an image of how we value the nature and its living beings around us. We are careful of what we use

on our skin, as this is a sensitive organ of our body and a major contact surface with the environment.

We aspire in ending the use of chemicals, plastics and all testing on animals within the skincare industry and believe that this is best achieved through adherence to organic certification of food, farming and personal products. We believe on our natural skin care products we sell, that their purity and efficacy are helping people to nurture their health and beauty as well as inspiring them to recognize and encourage beauty and well-being in others.

Thus, in encouraging environmentally friendly awareness and practices, we are contributing to the sustainability of our mother earth and our own well-being. We aspire to have a long lasting positive impact on our customers, our employees, and all around the world.

Problem Statement:

Alongside cleansing our body from dirt and oils, synthetic soaps can also remove natural oils that provide protection. Soaps these days are not pure formulation of fats and alkalies, but several synthetic substances and chemicals are used to provide it with specific features like antibacterial property, deep cleanser property etc. These soaps harm our skin more than they do good to us. They can be abrasive, skin-drying and irritating and can cause breakouts, dry and flaky skin. They can also cause several skin problems that result in infections. The ingredients that are used in the synthetic soaps are detrimental to our skin and some of these are even clinically proven!

Solution:

The production of a cheap and nontoxic soap that used organic substances. This caused no harm to the environment and it was made up of completely nontoxic chemicals which decreased the harmful effects on skin.

How We Arrived at the Solution:

A survey was conducted based on which it was judged that most of the people wanted a cheap soap according to their requirements. The use of organic substances was the goal since the beginning. Further research led to your better understanding of the components of the soap, this in turn allowed us to integrate the organic

components into it by keeping the primary work constant.

Product Design:

We designed the product into a flower shape using five oval soaps to make the product attractive.

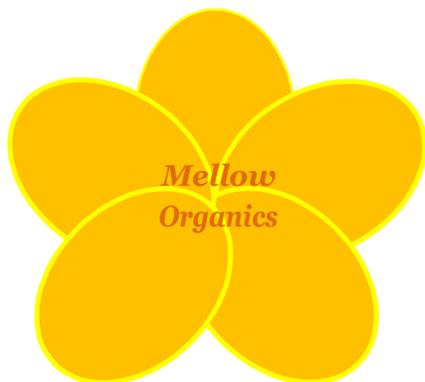


Fig 1

IV. PROCEDURE

Create the Lye Solution

Holding the container of water away from the creator and towards that open window, empty the precious lye stones into the water and mix well. Steam, exhaust, and warmth are the result of water and dry lye consolidating. Spot the steaming container of lye-water in the sink. Next, the sink should be filled with little water to help the lye arrangement lower its temperature. Utilize a bowl in case the creator is working endlessly from the sink.

Heat the potent oils.

Move away from the lye and start liquefying the potent oils on the most minimal warmth conceivable on the ob. When there are only a couple of bits of strong oil skimming in the container, turn off the warmth and move the dish to a potholder. Until the oils soften, mix them continuously with a spatula.

Mix the oils

Empty the liquid oils into the container after they soften. Utilize the spatula to get however much of it in as could reasonably be expected (castor oil has a genuine inclination to stick). Presently measure the temperature of the oils with an advanced thermometer. Reduce the temperature to 110°F/43°C.

Balance the temperatures

Keeping a constant eye on the oil temperature, head

back over to the lye arrangement and take its temperature as well. It is fine to go to and fro with the computerized thermometer for both. The lye arrangement ought to be inside ten degrees of the oils and can be either hotter or colder.

Stick Blending

At the point when the temperatures are correct, it is an ideal opportunity to blend the lye- arrangement with the oils. Pour the lye-arrangement through the little sifter (to get any pieces that probably will not have disintegrated) and into the skillet of warm oils. Next, place the stick blender into the skillet and use it to mix the blend tenderly. The blender should unindent the oil- lye arrangement.

Carry the stick blender to a halt in the focal point of the dish hand afterwards press beat for a couple of moments. At that point mix tenderly again for a minute and rehash the halt stick mixing. Keep beating and mixing the cleanser hither until it hits a light 'Follow'. The light implies the hither thickens and if some of it spills down from the stick blender, it will leave a blemish on the outside of the cleanser player before liquefying back in.

Add the Essential oils and Extras.

At the point when the cleanser player has thickened to a 'light follow,' it is an ideal opportunity to mix in your fundamental oils, the orange pizzazz, and the Grapefruit Seed Extract. Grapefruit Seed Extract is a cancer prevention agent and will help shield the oils in the cleanser from going rancid. Pour every one of them into the cleanser and delicately mix until they are scattered. Give it a decent 20-30 seconds of mixing.

Pour the cleanser into the shape.

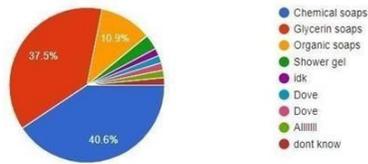
Empty the cleanser player into the silicone mould (s). Utilize the spatula to get a bit of the cleanser out of the dish and into the form. Settle the cleanser, so it has a level top. Do this by tenderly shaking the edges of the mould (s). Curing After 24 hours the cleanser should pop out of shape. The cleanser might take 2-3 days to pop out and cut into bars. It is moderately delicate in any case yet as it fixes, it will solidify.

V. RESPONSE THROUGH SURVEY

We surveyed to find out people's preferences for various organic soaps and study the market, and

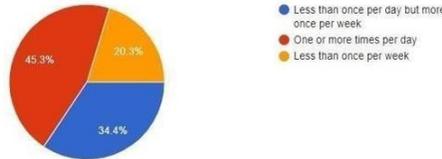
What kind of soaps do you use on a regular basis?

64 responses



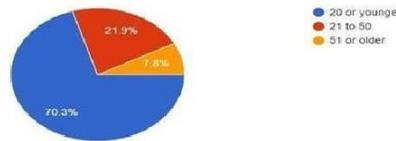
How often do you use bar soap (eg. for showering, bathing, washing hands, etc)?

64 responses



What is your age?

64 responses



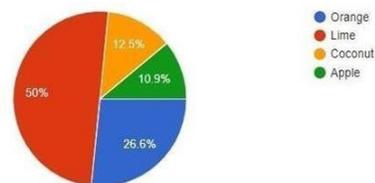
What is your gender?

64 responses



If a new brand of pure beauty soap was available, what ingredients would you

64 responses



<p>Key Partnerships</p> <ul style="list-style-type: none"> • Transport providers • Tech suppliers • plastic mold suppliers • glycerin and sodium hydroxide suppliers • advertising and marketing agency • wholesale and retail outlets 	<p>Key Activities</p> <ul style="list-style-type: none"> • R&D • Marketing • Promoting the eco-friendly innovation • 24x7 Customer service <p>Key Resources</p> <ul style="list-style-type: none"> • Organic wastes like lemon and orange peels • butters, shea • Sodium hydroxide (lye solution) • Water • Oils and fats • Glycerin • Anti oxidants • Soap fragrance, Essential oils, botanicals • Digital thermometer • Necessary utensil to work on • target market 	<p>Value Propositions</p> <ol style="list-style-type: none"> 1. Our project mainly focuses on making an organic cosmetic product using fruit waste as a healthier alternative to the chemical based soaps for health benefits. 2. The problematic approach of customers towards chemical and aesthetic products to glow their external beauty but are facing side effects. 3. Customers are demanding for a non-chemical use, vegan products or nature-only products which can have lower to zero side effects. 4. Taking wastes into a utilization of those demands and full filling the needs and wants of customers. 5. More production less wastes. 6. So, by completely focusing on 'waste', this innovation, service, or feature intended to make our product attractive to customers. 	<p>Customer Relationships</p> <ul style="list-style-type: none"> • Encourage customers to switch to organic products. • Organize campaigns to educate customers of the product being environmental friendly. • Promote the product by advertisements. • Email marketing. • Online feedback service. <p>Channels</p> <ul style="list-style-type: none"> • On the basis of type <ul style="list-style-type: none"> ◦ Skin care products ◦ Color cosmetics ◦ Hair care products ◦ Fragrance and deodorants ◦ Sun care products ◦ Soaps, bath, & shower products ◦ Oral hygiene products ◦ Personal hygiene products ◦ Others (baby care, depilatory products, etc.) • On the basis of distribution channel <ul style="list-style-type: none"> ◦ Supermarkets ◦ Pharmacy & drug stores ◦ Department stores ◦ Direct selling ◦ Specialty stores ◦ Beauty salons ◦ Internet retailing ◦ Others (shopping club, retail shops, etc.) 	<p>Customer Segments</p> <p>B2C:</p> <ul style="list-style-type: none"> Health conscious youth Middle and upper class customers Senior citizens <p>B2B:</p> <ul style="list-style-type: none"> Hotel industries Herbal outlets Ayurvedic practitioners Beauty industry
<p>Cost Structure</p> <p>To calculate the prime costs of a product, the company's costs for Administration, Research and Development (R&D) as well as for Marketing and Sales (M&S) must be added. Compared to the pharmaceutical, consumer goods and food industries, the total M&S's expenditures on cosmetics are much higher. Values between 35% and 65% of the net sales indicate more than double compared to others. This spending is only possible because the manufacturing costs are low. An earnings before interest and taxes value of approximately 13–20% is achievable, comparable to other well-managed companies. Taking into account country-specific characteristics, the market price for a novel product is based on the prime costs, expected demand, prices, and products of the competitors as well as on the own strength (brand, size, sales organization, and market access)</p>		<p>Revenue Streams</p> <ul style="list-style-type: none"> • Organic materials • Household contributions • Subscriptions • Patent sales • Percentage of bulk sales • Retail E-commerce sales 		

VII. EXPLANATION

Customer Segments

Customer Segments characterizes the gatherings of individuals or associations that expect to reach or serve. Each organization needs productive clients so as to endure. Utilizing the plan of action canvas, we will figure out what the client segment(s) will be. For our organic soap, we expect customers mainly from the middle and the upper-class segments where the emphasis is placed more on the quality of a product more than its expense. This class of customers are more concerned about the harmful effects of chemical soaps and therefore, will be interested in using organic soaps. Also, today's most of today's youth is health-conscious and will generally choose a product that will promise them

lesser harm than common goods and are produces naturally. Same with senior citizens, who never liked the chemical versions of the soaps anyhow and anything natural awakens their nostalgia, and they know its benefits. In case of B2B, we expect high-end hotel industries who provide their customers with quality care to be one of our major segments, along with herbal outlets, ayurvedic practitioners and the well-developed beauty industry, along with other smaller domains.

Revenue

Revenue is the measure of cash that an organization wins through its different business exercises (for example deals of items and administrations). A Revenue Stream is the structure square introducing the money an organization creates from every

Customer Segment. Most organizations need, at any rate, one fantastic income stream to acquire cash.

Revenue Streams generate in many different ways, and we can use a mix of these different ways for our company. Like in our case: Sale of physical product: soap sales.

Subscription fee: monthly purchase Advertising: TVC

Value Proposition

- Our project mainly focuses on making an organic cosmetic product using fruit waste as a healthier alternative to the chemical-based soaps for health benefits.
- The problematic approach of customers towards chemical and aesthetic products to glow their external beauty but are facing side effects.
- Customers are demanding for a non-chemical use, vegan products or nature-only products which can have lower to zero side effects.
- Taking wastes into the utilization of those demands and full filling the needs and wants of customers.
- More production fewer wastes.
- So, by entirely focusing on 'waste' this innovation, service, or feature intended to make our product attractive to customers.

Customer Relationships

Customer relationships: Customer relationships describe the type of relationship a company establishes with its specific customer segments. It explains how to get, keep and grow frequent customers.

- Encourage customers to switch to organic products-Organic soaps are free of chemical ingredients that can cause bodily damage. Due to its natural ingredients like essential oils, aloe, coconut oil, turmeric and honey; organic soaps tend to have additional healing properties for skin conditions such as acne, eczema, and sunburn. Due to these factors, Consumers will become more open to the usage of natural cosmetics for their benefit.
- Organize campaigns to educate customers of the product being environmentally friendly- The process

of producing organic soap does not involve the use of any chemical spray or animal experimentation. As consumers learn more through the campaign, consumers will make the switch to organic soap to support environmental initiatives.

- Promote the product by advertisement. The benefits of our products, costs and offers provided can be advertised in many platforms like social networking sites, website, ad campaigns by a famous personality which will attract the customers.
- Email marketing. Email showcasing is a profoundly compelling advanced advertising system of sending messages to possibilities and clients. Individuals who purchase items promoted through email burn through 138% more than the individuals who don't get email offers. Email advertising will permit us to stay in contact with our clients reliably.
- Online feedback service. Consumer feedback is essential in business. The online feedback form is displayed on our website, where the customers are free to give their feedback. Their opinions about the experience they have with our product are helpful information that we can use to adjust our business to fit their needs more accurately.

Key Activities

- Promoting the eco-friendly innovation- Organic brand stands out as different in a market dominated by synthetic-chemical-based beauty products. Ad campaigns, education campaigns, advertisements, email marketing and many more will promote our product.
- 24x7 Customer service- 24x7 support means a support service that is provided 24 hours a day and seven days a week. The technical service will be available around the clock to provide seamless support with well-coordinated shifts to help customers solve their queries.
- Marketing- The Marketing Department plays a vital role in promoting the business, which includes conducting campaign management for marketing initiatives,

producing marketing and promotional materials, conducting customer and market research.

- Research and Development-. Only one out of every odd skin is sleek or dry. Few out of every odd hair has a similar surface or size. Necessities of purchasers for individual consideration items change as per area, temperature, kind of skin and hair, the inclination of scent and numerous different perspectives. To take into account all the requirements of various purchasers and to ensure that a specific item suits the skin well without extraordinary responses, innovative work is an unquestionable requirement. Research and development add to the supportability of the business. Our exploration bolsters green or characteristic items' job in the beauty care products industry.

Key Partnerships

Explains the suppliers and partners in a business that helps in reducing the workload of the company. They also help with inefficient production, overall improving the company's sales. They are present from the most minimal needs to the most important ones too. They are the overall extension of the company and its production.

Channels

Cosmetic products are a wide range of skincare products, hair care products, colour cosmetics and fragrances. These products enhance the beauty of consumers by rejuvenating skin, giving shine to hair and much more. Distribution channels such as supermarkets and department stores, offer a wide array of cosmetic products and provide a convenient medium for selection of the desired product.

The cosmetics products market has various segments based on types, distribution channels, and geography in terms of value (\$Billion). The market segments, by type, include skincare, haircare, colour cosmetics, fragrance & deodorants, personal hygiene, oral hygiene, soap, bath & shower, sun care, and others.

The distribution channels of the cosmetic product include supermarkets, pharmacy & drug stores, department stores, direct selling, speciality stores, internet retailing, beauty salons, and others.

Cost Structure

In the worldwide cosmetic ventures, the anticipated market openings choose the execution of an inventive item into the creation. The possibilities develop by appealing assembling costs, which are set together of the fixed costs (deterioration and workforce) and the variable costs (crude materials and energies). Computing the prime expenses of the organization, the organization's expenses for Administration, Research and Development (R&D) just as for Marketing and Sales (M&S) includes.

Contrasted with the pharmaceutical, shopper products and food enterprises, the all-out M&S's uses on beautifying agents are a lot higher. Qualities somewhere in the range of 35% and 65% of the net deals show more than twofold contrasted with others. This spending is just conceivable on the grounds that the assembling costs are low.

Cost Modelling

For sustaining the company:

Sampling:

An initial expenditure of 100 soaps equivalent 1400-2000 rupees will have to be invested for free sampling to customers and shopkeepers this will allow the company to establish itself in the market. Marketing: 2000 Rupees(Sampling).

Salary: a team of 8 individuals will be enough for running the company initially: 4 in production.

2 in sales.

1 in marketing.

1 in accounting.

Salary of each person is set at 8000 initially with frequent rises expected.

Total budget:

Expenditure(investment): $20,000+2000=42000$

Income: $2500(\text{Per batch})-1400(\text{Per Batch})=1100$

Per Batch. No of batches per month

$=1100*60=66,000$

So in the first month, the sampling cost will be covered= $66000-2000=64,000$ After all the expenditures the company will be left with $66000-56000=10000$ for further investment.

With such funds within six months, the initial

expenditure will be covered, and the production doubled.

Marketing Strategy

Step 1

For the initial period, we would like to focus on the marketing methods can we can cover ourselves and promote. This is arenas that are cost-effective and under our control. These might be:

- Our website
- Our email newsletter
- Youtube channels
- Various paid to advertise
- Ask YouTubers and beauty bloggers to review our content
- A blog or other form of content marketing
- Various organic social media posting

Step 2

Next, we will like to quantify and set a goal for selling our products. We could set goals for each marketing method that we are using. For our website, our goal could be to sell our soaps, increase traffic on the website, and share our story and unique point of view.

We have to make sure to customize each marketing idea that has to our goals and the different steps in the customer life cycle. Cover all our bases. It should help create a roadmap to our future processes.

Step 3

This is to lead the marketing in progress and start panning out. We will create a marketing schedule so that we know what we need to do to execute our plan and market our organic soap efficiently. We have to make sure of automation and efficiency in the process.

Executive Summary

When we discovered that there is a sizeable population that is really fed up with chemical soaps and would like to use organic and gentle soaps, we decided to conduct a survey. When the survey results were out, we realised that many people were interested in using an organic soap made of lemon or orange peels. So we came up with the idea of making organic soap using fruit peels. The motto of our product was simple: to replace the chemical soaps in the market, and make the best use of organic waste. The problem statement was addressed with this solution. We

faced some problems through the course of ideation of the product and testings and it was a gradual process.

By review 2, we had developed our product and sampled it to our friends to get their reviews and opinions. Using their good reviews and criticisms we tried to improve upon our product and it has led to what it is today. When our product was good to go, it was time to decide upon the marketing strategies. We went with social media marketing at first and tried to market our product int the college campus first and our main target audience were the college students and professors. We did our cost modelling and made cuts in any unnecessary expenses . we came up with the business model canvas. Also , we came up with a name for our product; —Mellow Organics! and its logo.

Mellow Organics is a brand that produces organic soap that is made from organic fruit waste, and is non abrasive on the skin, makes it soft and nourished.

VIII. CONCLUSION

The cosmetics industry is one of the largest industries in the world. It has a trillion dollars output throughout the world, but due to over usage or usage of unethical means this industry has come under much pressure in recent times. Many brands in the market are offenders of false claims and the selling of faulty goods.

Also, too much usage of chemicals over a longer duration of time can prove harmful for us. There are many adverse effects of beauty products which are frequently overlooked by the customer and the company. So to spread awareness and to bring some positive change, we have tried to create a product that is both users friendly as well as good for the environment and completely natural and organic.

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