PROJECT PROFILE FOR BURANSH (RHODODENDRON) JUICE AND SYRUP BOTTLING UNIT IN UTTARAKHAND

1. INTRODUCTION

The Buransh flower, derived from the Rhododendron arboreum tree, is one of the most iconic and culturally significant wild blooms of Uttarakhand's mid and high-altitude regions. Blooming in vibrant red and pink shades during the spring months, it is deeply embedded in the culinary and medicinal heritage of the hills. Traditionally, the juice made from Buransh petals has been used as a cooling drink with heart-strengthening and anti-inflammatory properties, especially effective during hot summers. Despite this heritage value and widespread availability, Buransh-based products remain largely under-commercialized and are limited to household-scale preparation.

A bottling unit for Buransh juice and syrup offers a high-value opportunity to preserve, package, and market this native floral product in a shelf-stable, standardized form. The unit processes freshly harvested Buransh petals into sweetened juice or concentrated syrup through pasteurization, filtration, and bottling, making it available throughout the year. This adds economic value to a perishable seasonal resource and supports the rural and forest economy, particularly benefiting women and tribal foragers involved in flower collection. Moreover, the popularity of floral and functional beverages in urban wellness markets provides strong downstream potential for Buransh products.

This enterprise aligns well with Uttarakhand's broader goals of eco-entrepreneurship, biodiversity-based value addition, and sustainable mountain livelihoods. As more consumers seek immunity-boosting, herbal, and heritage drinks, the demand for authentic Buransh juice is poised to grow. A micro or small-scale bottling unit can integrate local foraging groups, trained SHGs, and digital retail channels to create a viable supply chain for both domestic and institutional markets, while also preserving an endangered cultural product of the Himalayas.

2. INDUSTRY OVERVIEW

The Indian non-carbonated beverage industry is undergoing a transformation, with growing consumer interest in traditional, herbal, and functional drinks. The overall juice and syrup market in India is valued at over ₹25,000 crore and is expected to grow at a CAGR of 11–13%. Within this, natural fruit- and flower-based drinks such as bael, aam panna, kokum, and rhododendron are gaining recognition as immunity boosters and natural refreshers. Premium retail stores, Ayurveda cafés, and organic lifestyle brands are creating a niche for local, indigenous beverages that are free of synthetic preservatives and added sugars.

Uttarakhand is home to many such underutilized beverage ingredients, and Buransh stands out as a seasonal but high-potential floral raw material. While local bottlers in areas like Almora and Pauri have been producing small batches of Buransh squash, these efforts often lack scale, standardization, and packaging suitable for wider markets. A formal processing unit with FSSAI compliance and proper branding can help overcome these challenges and open access to high-value retail, tourism, and online segments. The National Medicinal Plants Board, PMFME, and the Uttarakhand government have identified Buransh as a viable product for value addition under ODOP and biodiversity economy programs.

The industry is also witnessing a convergence of traditional knowledge and modern processing. Buransh is increasingly being tested in food tech labs for its antioxidant levels, anti-inflammatory properties, and cardiovascular benefits. This opens opportunities not just for syrup and juice bottling, but for the development of derivative products like ready-to-drink beverages, teas, and herbal concentrates. With supportive policies, rising consumer awareness, and abundant raw materials, Buransh juice bottling represents a sunrise micro-enterprise sector in the Himalayan state.

3. PRODUCT DESCRIPTION AND APPLICATIONS

The main products of the unit include bottled Buransh juice and syrup, each with unique preparation processes and consumer applications. **Buransh juice** is a ready-to-drink beverage typically made by boiling the cleaned flower petals, extracting their essence, and blending it with filtered water, lemon juice, and natural sweeteners. It is pasteurized, cooled, and then bottled in 200ml to 500ml glass or PET bottles. This drink is consumed chilled and is known

for its cardiovascular and anti-fatigue effects, making it ideal for summer or post-activity refreshment.

Buransh syrup or squash is a more concentrated form of the juice, often with higher sugar content and longer shelf life. It is prepared by reducing the floral extract to a thick liquid and bottling it in 500ml or 1-litre sterilized bottles. This syrup can be used by consumers to prepare their own drink by adding water (in 1:3 ratio), or as a base for cocktails, mocktails, or herbal teas. Hotels, cafes, and households prefer syrup form for its versatility and ease of storage. Variants such as Buransh honey syrup or Buransh with lemon/ginger infusions are also gaining popularity.

The applications go beyond direct consumption. Buransh syrup can be supplied to wellness centres, tourist homestays, Ayurveda clinics, and even packaged as "Himalayan Flower Gifts" during local festivals. The products have potential in eco-tourism circuits, where visitors are eager to try and purchase local specialty drinks. With branding support and FSSAI certification, these products can also be featured in online platforms, souvenir shops, and organic retail chains. The shelf-stable nature of the syrup (6–8 months) makes it suitable for inter-state and even export shipments, opening scalable market avenues.

4. DESIRED QUALIFICATION FOR PROMOTERS

The Buransh juice bottling unit is best suited for entrepreneurs who are either rooted in mountain communities or have a strong interest in traditional food and beverage enterprises. No formal technical degree is mandatory, but basic knowledge of food hygiene, herbal processing, and small-scale food preservation is desirable. Individuals who have undergone training in juice and squash making through PMFME, KVKs (Krishi Vigyan Kendras), or food processing institutions will find it easier to manage operations and compliance requirements.

Women self-help group (SHG) members, local youth, or eco-tourism entrepreneurs with prior experience in kitchen processing or floriculture collection can become successful promoters of this enterprise. Familiarity with forest rules regarding flower collection (especially from Van Panchayats) and basic record-keeping skills are important for ensuring ethical and sustainable sourcing. Knowledge of FSSAI norms, boiling-pasteurization techniques, and bottling hygiene are also helpful.

Moreover, an entrepreneurial mindset that combines cultural appreciation with commercial strategy is valuable. Since Buransh products are highly seasonal, the promoter should plan sourcing, production, and sales cycles efficiently. Understanding of packaging, branding, and local marketing—especially in fairs, exhibitions, and digital media—can greatly improve market access and profit margins. Promoters willing to invest time in storytelling, eco-branding, and quality assurance will find long-term success in the Buransh-based value chain.

5. BUSINESS OUTLOOK AND TRENDS

The outlook for Buransh-based products is extremely positive, supported by both consumer demand and government policy. Floral beverages are experiencing a revival as consumers seek alternatives to sugary sodas and chemical-laden energy drinks. With increasing awareness of Ayurveda, immunity boosters, and regional wellness traditions, Buransh juice is being re-discovered as a functional beverage rooted in Indian hills. Furthermore, sustainability trends have boosted interest in local forest produce, creating room for eco-certified floral drinks with GI tagging and clean-label credentials.

In Uttarakhand, the Buransh bloom marks the arrival of spring and is tied deeply to cultural practices. Leveraging this seasonal significance, Buransh products can be branded as “limited-edition” or “seasonal harvest specials”, generating a sense of urgency and exclusivity among buyers. Alongside mainstream juice, ready-to-drink (RTD) floral water, concentrate drops, and herbal infusions are being explored by high-end wellness brands. This opens up future diversification possibilities for Buransh-based entrepreneurs.

Government schemes such as the PMFME, Devbhoomi Udyamita Yojana (DUY), and One District One Product (ODOP) offer financial, branding, and training support for units engaged in traditional beverage processing. With proper backward linkage to flower collectors and forward linkage to tourism outlets, Buransh juice and syrup bottling can evolve from a micro-enterprise to a regionally scaled agro-based startup. As climate-resilient products with heritage value, they will likely become central to Uttarakhand’s emerging “bio-cultural” economy.

6. MARKET POTENTIAL AND MARKET ISSUES

The market potential for Buransh juice and syrup lies in both rural and urban segments. In local hill markets, there is existing familiarity with Buransh, and consumers purchase it for its health properties. With value addition and attractive packaging, sales can be expanded in regional

kirana stores, SHG outlets, yatri niwas canteens, and school/hostel tuck shops. In urban areas like Dehradun, Haldwani, and Delhi, wellness-conscious consumers are willing to pay a premium for authentic mountain drinks made without synthetic colors or preservatives.

Institutional buyers such as government guesthouses, eco-hotels, Ayurveda centers, and local cafés are important customers. Additionally, there is strong demand during Char Dham yatra season, local fairs, and festive periods when packaged gifts and refreshing drinks see a sales spike. Online marketplaces, including organic lifestyle platforms and Instagram stores, offer a direct-to-consumer route that increases profit margins. With improved shelf life and certification, Buransh juice can even be pitched to specialty food exporters catering to Indian diaspora or herbal wellness markets.

However, market challenges include short harvesting windows (only 6–8 weeks), flower perishability, and lack of public awareness in non-hill regions. Consumers may initially be unaware of Buransh or cautious due to its medicinal nature. Overcoming this requires branding that educates and appeals. Pricing can also be an issue—premium packaging and small-batch production mean the product is costlier than mass-market drinks. Finally, ensuring flower collection complies with biodiversity regulations is essential to prevent ecological exploitation. These challenges can be mitigated through planning, storytelling, and policy convergence.

7. RAW MATERIAL AND INFRASTRUCTURE

The primary raw material for the unit is the **fresh Buransh flower petals** (Rhododendron arboreum), which are harvested during the spring months of February to April from mid- and high-altitude regions of Uttarakhand. The petals must be freshly picked, undamaged, and free from contamination or moisture. On average, 1 kg of clean Buransh petals yields 3–4 liters of juice extract when combined with sugar and lemon. Other key inputs include **filtered water, sugar or jaggery, lemon juice, citric acid (as a preservative), and clean glass or PET bottles** for packaging.

The infrastructure for the unit requires a clean, ventilated processing room of 500–800 sq ft, preferably with washable walls and hygienic drainage for food safety compliance. The space should have clearly demarcated zones for **flower washing, boiling and extraction, filtration, pasteurization, and bottling**. Access to clean drinking water, electricity, and fire safety systems is essential. Storage space for both raw petals (during the harvesting window) and finished bottles (at room temperature or in cool, dry conditions) is also needed.

Key equipment includes large **SS boiling vessels**, flower washing basins, juice extractors, filter cloth or fine mesh filtration units, **semi-automatic bottling machines**, capping units, and label applicators. A basic laboratory thermometer and pH tester are useful for quality control. Pasteurization equipment, either open pan or closed system, is required to increase shelf life and reduce microbial risk. If the unit wishes to scale in the future, small-scale **autoclaves or hot-fill bottlers** can be added. The use of glass bottles improves shelf life but PET is often preferred for cost and logistics.

Table 1: Raw Material and Infrastructure Requirements

Component	Specification / Quantity	Remarks
Buransh Petals	1,000–1,500 kg (seasonal)	Collected in March–April; stored and processed fast
Sugar / Jaggery	500–700 kg/month	For syrup sweetening; jaggery for herbal variants
Filtered Water	4,000–5,000 liters/month	For extraction and dilution
Lemon Juice / Citric Acid	50–100 liters/month	For taste and shelf life
Glass / PET Bottles	5,000–10,000 bottles/year	200 ml, 500 ml, or 1 liter variants
Processing Area	500–800 sq ft	Food-safe, ventilated with water/electricity
SS Vessels and Filters	2–3 of 50–100 liter capacity	For boiling and straining flower juice
Pasteurizer / Hot Fill Unit	1 small unit	For increasing shelf life of juice
Bottling and Capping Unit	Semi-auto, manual	For filling and sealing
Label Printer	Manual / desktop with thermal ink	For FSSAI label and batch codes

8. OPERATIONAL FLOW

The operational flow of Buransh juice and syrup production must be designed to minimize wastage, ensure hygiene, and maintain consistent flavor and color. Since flowers are highly perishable, quick turnaround from harvesting to boiling is crucial. A good unit ensures that raw petals are processed within 6–8 hours of collection to prevent microbial spoilage or discoloration.

1. Collection and Cleaning

Fresh Buransh flowers are collected by local foragers or SHGs early in the morning and brought to the unit. The petals are separated from the green calyx and washed thoroughly in clean water to remove dust, insects, or pollen. A mild potassium metabisulfite wash may be used to improve shelf life and color retention.

2.Boiling and Extraction

Washed petals are boiled in SS vessels with water and lemon juice until the essence and natural color are released. The floral extract is then filtered using fine muslin cloth or a mesh strainer to separate solid residues. The filtered juice is combined with sugar or jaggery and brought to a boil again for concentration and sterilization.

3.Pasteurization, Bottling, and Labelling

The final juice or syrup is hot-filled or pasteurized and cooled to room temperature. It is then bottled in sterilized glass/PET containers, sealed with a capper, and labeled with product name, date, FSSAI details, and batch number. The bottles are stored in a dry, dark place away from sunlight.

Flow Chart of Operational Process
Flower Collection
↓
Sorting and Washing of Petals
↓
Boiling and Juice Extraction
↓
Filtration and Concentration
↓
Addition of Sugar / Preservatives
↓
Pasteurization / Hot Filling
↓
Bottling, Capping, and Labeling
↓
Cooling, Storage, and Dispatch

9. TARGET BENEFICIARIES

The Buransh juice and syrup bottling project is designed to benefit a broad spectrum of stakeholders across the rural and hill economy of Uttarakhand. The key direct beneficiaries are **women-led SHGs, youth entrepreneurs, and forest-based gatherers**, especially those residing in mid-altitude villages near Van Panchayat zones.

First, **women self-help groups and Van Panchayat committees** can engage in seasonal flower collection and initial cleaning of the petals. This provides additional income during spring, especially to women who are traditionally involved in foraging. With basic training, SHGs can also manage micro-units for boiling, bottling, or sales.

Second, **rural youth trained under DUY or PMFME** can become unit operators, managing processing, branding, and distribution. With digital literacy and support for branding, they can lead online sales or set up kiosks near pilgrimage and tourist centers, where the product has high visibility.

Third, **micro-entrepreneurs and SHG federations** can scale this model by forming a cluster of flower collectors and establishing a centralized bottling unit. This benefits not only collectors and processors but also local transporters, bottle suppliers, and traders. The product

also promotes environmental awareness, as sustainable flower harvesting ensures the conservation of local forest biodiversity.

10.SUITABLE LOCATIONS IN UTTARAKHAND

The Buransh flower grows naturally in forested belts of Uttarakhand between the altitudes of 1,500 to 3,000 meters. Hence, suitable locations for this project are those districts and blocks where flower availability is assured and community collection networks can be mobilized easily. These include both Garhwal and Kumaon regions w

ith Van Panchayat access and SHG activity.

In the **Garhwal region**, areas such as **Pauri (Khirsu, Thalisain), Rudraprayag (Jakholi, Ukhimath), Chamoli (Ghat, Joshimath), and Tehri (Ghansali, Pratapnagar)** are ideal due to dense forest cover, known flowering zones, and the presence of local entrepreneurs familiar with floral products. These areas are also connected to seasonal tourism circuits where the bottled Buransh juice can be sold effectively.

In the **Kumaon region**, locations such as **Almora (Jageshwar, Hawalbagh), Bageshwar (Kanda, Kapkot), Pithoragarh (Didihat, Gangolihat), and Nainital (Betalghat, Ramgarh)** are suitable. These blocks offer proximity to forest petals, SHG networks under NRLM, and access to cold-temperate environments ideal for harvesting and flower preservation. Areas with a local food processing center or KVK presence should be prioritized.

The ideal unit location should be within 5–10 km of major Buransh collection belts to minimize transport time. Road connectivity, access to water, power supply, and proximity to local markets or tourism centers are additional criteria. Units located near pilgrimage or eco-tourism destinations have added advantage in terms of direct sales and consumer awareness.

11.MANPOWER REQUIREMENT

A micro bottling unit can be efficiently managed by a team of 4 to 5 workers, with seasonal labor added during flower collection and processing peaks. Skilled and semi-skilled personnel are required for handling flowers, boiling, bottling, packaging, and outreach. The unit also requires part-time or shared marketing and administration staff to handle compliance, orders, and branding tasks.

Core manpower includes one production supervisor (preferably with food processing training), two flower handling and boiling assistants, one bottling and packaging worker, and a marketing/admin support person. During peak harvesting months (March–April), additional daily wage workers may be needed for flower cleaning and collection. If run by an SHG federation, the responsibilities can be rotated.

The annual manpower cost is moderate, particularly since many roles can be part-time or shared with nearby food units (such as pickles, squashes, or tea drying units). Local youth trained under DUY, PMFME, or KVK short courses can be hired affordably and will have contextual knowledge of the product and customer base.

Table 2: Manpower Requirements and Annual Cost

Position	No. of Staff	Monthly Salary (₹)	Duration	Annual Cost (₹)	Key Responsibilities
Production Supervisor	1	₹18,000	12 months	₹2,16,000	Oversee boiling, pasteurization, quality control
Flower Processing Assistants	2	₹12,000	12 months	₹2,88,000	Washing, extraction, syrup boiling
Bottling & Packaging Staff	1	₹10,000	12 months	₹1,20,000	Bottle sterilization, sealing, labeling
Sales & Admin Assistant	1 (part-time)	₹6,000	12 months	₹72,000	Orders, accounts, market outreach
Seasonal Workers	2–3	₹8,000	2–3 months	₹48,000 – ₹72,000	Flower sorting, collection assistance
Total Annual Cost	–	–	–	₹7,00,000 – ₹7,50,000	Including seasonal workers and part-time support

12. IMPLEMENTATION SCHEDULE

The Buransh juice bottling unit can be fully established within 8 to 10 months from project sanction. Since the harvesting window is limited to February–April, it is important to align

equipment procurement and training to begin trial runs before the next flowering season. Advance planning allows time for branding, bottling trials, and market linkage development.

The first two months should be dedicated to securing FSSAI registration, site finalization, and quotations from equipment suppliers. Months 3 to 5 will include civil works, installation of boiling and bottling systems, water testing, and team recruitment. Basic packaging material and labels should be prepared during this period as well. By month 6, the unit can begin trial runs using stored or test batch petals.

Full-scale procurement, boiling, and bottling should begin in March, when flower availability peaks. During months 8 to 10, retail and institutional linkages can be activated. Digital marketing, event stalls, and SHG exhibitions should be launched parallelly. Inventory from this season will provide stock for the next 4–6 months, allowing time for operational review and expansion planning.

13. ESTIMATED PROJECT COST

The total project cost for a small-scale Buransh juice and syrup bottling unit ranges from ₹10 lakh to ₹14 lakh, depending on scale, packaging type (PET vs. glass), and degree of automation. The capital expenditure includes machinery, basic infrastructure, and brand packaging setup, while working capital covers raw materials, salaries, transport, and marketing for the first year. If using solar power, water filters, or advanced pasteurization units, the cost may go up slightly.

The civil infrastructure cost assumes a 500–800 sq ft space with food-grade flooring, water storage, and drainage. If the entrepreneur owns the land or building, this cost reduces. Machinery is estimated for semi-automatic boiling, filling, and capping systems. Packaging design and materials are essential for building retail credibility and FSSAI compliance.

The working capital portion ensures smooth operations for at least 6–8 months post-launch, including flower procurement, sugar, bottles, salaries, and exhibition participation. It is advisable to provision for branding and promotional material such as flex boards, leaflets, sample kits, and online launch.

Table 3: Estimated Project Cost

Component	Estimated Cost (₹)	Remarks
Civil Works and Setup	₹2,00,000 – ₹2,50,000	Floor tiling, plumbing, wiring, water tank
Equipment and Machinery	₹3,50,000 – ₹4,50,000	Boilers, filters, bottle fillers, capper, pasteurizer
Bottles and Packaging Stock	₹1,00,000 – ₹1,50,000	Glass or PET bottles, caps, label printing
Initial Working Capital	₹3,50,000 – ₹4,50,000	Salaries, raw materials, transport, marketing
Branding & Certification	₹50,000 – ₹75,000	FSSAI license, brand design, eco-labeling if needed
Total Project Cost	₹10,50,000 – ₹13,75,000	Based on location, packaging, and capacity

14. MEANS OF FINANCE

The unit can be financed through a mix of promoter investment, institutional loans, and government support schemes. Typically, the entrepreneur is expected to bring in 10–25% as personal equity, while the rest can be financed through credit and subsidy.

The **PMFME (Pradhan Mantri Formalisation of Micro Food Processing Enterprises)** scheme allows up to 35% capital subsidy on project costs, with a maximum of ₹10 lakh per unit. DUY in Uttarakhand may offer mentoring, subsidy convergence, and business development services. PMEGP loans are another option for first-time entrepreneurs with interest subsidy and margin money support.

Additionally, SHG federations can use NRLM grants or revolving fund mechanisms. Those located in ODOP or biodiversity zones may also access support through the **Uttarakhand Biodiversity Board, NABARD**, or **Van Panchayat convergence funds**. Financial institutions like Cooperative Banks, SIDBI, and regional rural banks offer tailored loans for such ventures under priority sector lending.

Sources of Finance Table

Source	Approx. Contribution (₹)	% of Total Project Cost	Remarks
Promoter's Equity	₹2,00,000 – ₹3,00,000	15–25%	Entrepreneur's own investment
Bank Term Loan (PMEGP/PMFME)	₹5,00,000 – ₹7,50,000	50–60%	Through cooperative bank or regional bank
Subsidy (PMFME/DUY/NABARD)	₹3,00,000 – ₹5,00,000	25–35%	Can reduce repayment burden
Total Project Funding	₹10,50,000 – ₹13,75,000	100%	May vary slightly based on scheme and location

15. REVENUE STREAMS

Revenue will be generated through multiple Buransh-based products sold across several channels. The core offering is **bottled juice (ready-to-drink)** in 200ml or 500ml units, and **Buransh syrup** in 500ml to 1-liter packaging. Products will be sold through retail shops, fairs, exhibitions, tourist hubs, and online platforms. A seasonal combo pack including Buransh juice, squashes, and herbal teas can be introduced for gifting.

Special seasonal editions—such as "First Spring Harvest" or "Buransh + Lemon" variants—can fetch premium rates during yatra season, spring festivals, and summer wellness drives. Additionally, **institutional orders** from hotels, yoga centers, and eco-resorts provide bulk revenue with steady demand.

Online channels, including WhatsApp catalogs and Instagram-based sales, can add high-margin direct-to-consumer streams. A future extension may include herbal extracts, concentrates, or dried flower tea if product lines diversify.

Table 4: Revenue Streams Estimate (Year 2)

Product Type	Selling Price (₹)	Estimated Annual Sales (Units)	Revenue (₹)	Channel
Buransh Juice (200 ml)	₹40	40,000	₹16,00,000	Local stores, fairs, online
Buransh Syrup (500 ml)	₹120	10,000	₹12,00,000	Institutions, SHG outlets, hotels
Premium Gift Packs	₹250	2,000	₹5,00,000	Tourist centers, fairs, festive orders
Online Sales (assorted)	₹100	5,000	₹5,00,000	Direct sales, high-margin, digital delivery
Bulk Sales to Cafés/Hotels	₹1,000/dozen	500 dozens	₹5,00,000	Bulk institutional orders
Estimated Annual Revenue	–	–	₹43,00,000 – ₹45,00,000	With partial capacity utilization

16. PROFITABILITY STREAMS

The profitability of the Buransh juice and syrup unit is driven by its seasonal premium pricing, low-cost raw material (flowers are often freely or cheaply available from forests), and value addition through branding and bottling. Margins are especially high on syrup and premium gift packs due to longer shelf life, lower transport cost per unit, and perception of wellness or cultural value.

Retail sales through fairs, organic stores, and online platforms offer the highest margins—often between 40–50%—due to direct-to-consumer pricing. Sales through SHG haats and local kirana stores give lower margins but ensure consistent cash flow and product rotation. Institutional bulk orders (hotels, resorts, eco-cafés) offer lower per-unit margins but come with bulk quantities and lower transaction costs.

Seasonal products like “First Spring Juice,” Buransh with Lemon/Ginger variants, and herbal mocktail bases can be introduced at festivals or yatra seasons to drive additional profit.

Moreover, offseason profits can be supported through advance bookings, pre-orders, and combo pack promotions. Effective use of digital sales and storytelling can significantly increase average order value and repeat customer rates.

Table 5: Profitability Estimate (Year 2 onwards)

Category	Annual Revenue (₹)	Annual Expenses (₹)	Net Profit (₹)	Remarks
Juice and Syrup Sales	₹43,00,000	₹28,00,000	₹15,00,000	Includes material, salaries, packaging, fuel
Premium Packs & Gifts	₹5,00,000	₹2,00,000	₹3,00,000	High-margin products for events, fairs
Online and Direct Orders	₹5,00,000	₹2,50,000	₹2,50,000	Higher margins due to no middlemen
Total Profit	₹53,00,000	₹32,50,000	₹20,50,000	Subject to seasonal variation and marketing spend

17. BREAK-EVEN ANALYSIS

The break-even point for the Buransh unit can be achieved relatively early due to the high per-unit margins and low fixed costs. Assuming an annual profit of ₹15–20 lakh from year 2 onwards, the unit can recover its capital investment within the first 18–24 months of full operation. The main costs in the first year are related to equipment, packaging, and initial branding efforts.

Key break-even factors include the cost of flowers (which is typically negligible), efficient utilization of syrup stock for longer shelf life, and high sales during March–August (peak beverage season). Marketing investment in year 1—especially for fairs and digital platforms—can accelerate visibility and sales, reducing the time to break even.

By targeting 60–70% capacity utilization by the end of year 2 and 80–90% by year 3, the project can move into consistent profit territory. Diversification into Buransh-based herbal tea, squashes, or RTD drinks can extend revenue beyond the spring-summer window, thereby stabilizing cash flows across the year.

Table 6: Break-Even Analysis Summary

Component	Value (₹)	Remarks
Total Fixed Investment	₹10,50,000 – ₹13,75,000	Setup + equipment + branding
Average Monthly Revenue	₹3,50,000 – ₹4,00,000	Based on the 2nd year projection
Average Monthly Expenses	₹2,50,000 – ₹2,75,000	Raw material, salaries, logistics
Monthly Net Profit	₹1,00,000 – ₹1,25,000	Grows with scale and brand awareness
Estimated Break-Even Period	16 – 22 months	Can be reduced with good seasonal and festival sales

18. MARKETING STRATEGIES

Marketing for Buransh juice must combine **local authenticity with health and lifestyle positioning**. The key differentiator lies in the Himalayan origin, floral heritage, and wellness value. Packaging design should reflect local stories, eco-labels, and cultural motifs. Simple messages like "Heart-Cooling Summer Drink from Uttarakhand Forests" can attract health-conscious consumers and tourists.

Offline marketing includes participation in **local fairs, SARAS Melas, ODOP exhibitions, and tourist stalls** along the Char Dham route. Units can tie up with Uttarakhand Tourism, local restaurants, forest development centers, and temple trusts to offer seasonal promotions. Selling in eco-hotels and homestays as welcome drinks or through café menus creates aspirational visibility.

Online marketing can be done via **Instagram, WhatsApp business catalogs, YouTube shorts, and Amazon/Meesho seller platforms**. Short videos showing flower collection, boiling, and bottling evoke trust and promote transparency. Influencer collaboration with food bloggers, wellness coaches, or yoga pages can generate urban traction. Partnering with regional organic food startups can expand reach without owning logistics or warehouses.

19. MACHINERY REQUIRED

Setting up a small-scale Buransh juice bottling unit requires affordable, food-grade processing equipment that can handle boiling, filtration, bottling, and packaging. Most of the machinery is semi-automatic and locally available through MSME vendors in Uttarakhand or nearby states. The machinery should be selected keeping in mind seasonal high output during the Buransh bloom period, but compact enough to operate year-round for syrup sales or diversification.

Core machinery includes **stainless steel boiling pans**, **juice extractors**, and **double-layer filters** to ensure clarity. A **manual or semi-automatic bottling and capping machine** ensures hygiene and speed in packaging. A hot-fill or small pasteurization unit is necessary for increasing shelf life and microbial safety. If budget permits, an electric label printer or thermal printer for FSSAI compliance is recommended.

Supportive equipment includes weighing scales, ladles, muslin cloths, hand-held bottle washers, and bottle drying racks. Most of this machinery is available from local MSME equipment suppliers in Haridwar, Dehradun, or through the PMFME vendor directory. Units can also access government-run Common Facility Centers for shared use of bottling and labeling infrastructure during peak season.

Table 7: Machinery and Equipment Requirements

Equipment	Specification	Estimated Cost (₹)	Remarks
Stainless Steel Boiling Pan	50–100 liter capacity	₹60,000 – ₹80,000	With stirrer; food-grade material
Juice Extraction Unit	Manual or semi-auto	₹30,000 – ₹40,000	For petal juice extraction
Double-Layer Filter Unit	Mesh + cloth filter frame	₹20,000 – ₹30,000	For juice clarity and consistency
Pasteurizer / Hot Fill Tank	100-liter capacity	₹75,000 – ₹1,00,000	Maintains shelf life
Bottling and Capping Unit	Manual or semi-automatic	₹75,000 – ₹1,20,000	Improves speed and hygiene

Equipment	Specification	Estimated Cost (₹)	Remarks
Label Printer / Thermal Ink	Compact desktop printer	₹15,000 – ₹25,000	For batch, expiry, FSSAI info
Bottle Washer and Dryer	Manual with drain setup	₹10,000 – ₹15,000	Ensures hygiene of recycled bottles
Misc. Tools and Safety Gear	Gloves, ladles, safety masks	₹10,000 – ₹20,000	General hygiene and handling
Total Estimated Machinery	–	₹3,00,000 – ₹4,30,000	Can vary with vendor and automation level

20. ENVIRONMENTAL BENEFITS

The Buransh juice bottling project has significant positive environmental implications. First and foremost, it **encourages sustainable harvesting** of a forest-based, non-timber floral resource. Local communities, especially women SHGs, are incentivized to preserve and responsibly collect the flowers, ensuring the continued survival of the Rhododendron ecosystem.

Secondly, the unit promotes **local processing**, reducing the carbon footprint associated with long-distance transport and cold chain logistics. Glass or recycled PET bottle use can further minimize environmental impact. Waste from petals can be composted or turned into low-volume natural color or extracts for soaps and incense.

Lastly, the project **reduces pressure on monoculture crops** by creating market value from wild forest diversity. The Rhododendron bloom often coincides with pre-sowing seasons, giving mountain families income from floral harvest without disrupting agriculture. By aligning with organic, local, and forest-friendly values, this unit fits well with Uttarakhand's vision for sustainable development and eco-enterprises.

21. FUTURE OPPORTUNITIES

The Buransh juice and syrup bottling unit has wide scope for expansion and product diversification. Once the basic syrup and juice sales stabilize, entrepreneurs can develop **ready-to-drink (RTD) herbal beverages** in small tetra packs or glass bottles, targeting wellness

cafés, yoga centers, and urban retail chains. This can include Buransh cooler, Buransh mocktail, or Buransh tonic with herbal infusions.

Another opportunity lies in **Buransh-based food and cosmetic applications**, including rhododendron tea blends, dry petal sachets, flower jams, or herbal bath infusions. Export-oriented production can be explored in partnership with AYUSH brands and Himalayan organic exporters, especially if dried or concentrated Buransh extracts are developed.

In the long run, successful units can adopt a **cluster-based model**, where one bottling hub sources from 5–6 villages engaged in collection and pre-processing. This promotes rural employment, standardizes quality, and opens B2B supply opportunities to herbal brands.

Disclaimer

Only a few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not imply any recommendation.