### Market Research: Fresh Produce in Jamaica for Natural Colorants

# **Objective:**

To identify locally grown fresh produce in Jamaica that can be used to extract natural colorants and assess their market potential.

# 1. Key Fresh Produce & Their Natural Pigments

Produce	Color Produced	Pigment Type	Uses
Sorrel (Hibiscus)	Deep Red	Anthocyanins	Beverages, sauces, cosmetics
Beetroot	Red to Purple	Betalains	Juices, natural food dyes, cosmetics
Turmeric	Bright Yellow	Curcumin	Curry, teas, textiles
Carrot	Orange	Carotenoids	Juices, baby food, snacks
Annatto (Achiote)	Orange to Red	Bixin, Norbixin	Cheese coloring, margarine, cosmetics
Callaloo	Green	Chlorophyll	Soups, natural green dye
Spinach	Green	Chlorophyll	Soups, pastas, smoothies
Red Sorrel Calyxes	Burgundy to Purple	Anthocyanins	Wine, drinks, syrups
Blue Pea Flower	Blue to Purple	Anthocyanins	Tea, drinks (color changes with pH)
Scotch Bonnet Skin	Yellow, Orange, Red	Capsanthin	Hot sauces, pepper jelly
Red Cabbage	Purple/Blue	Anthocyanins	pH indicator, drinks, candies
Moringa Leaves	Green	Chlorophyll	Herbal teas, superfood powders

## 2. Market Demand Trends

Sector	Demand for Natural Colors	Notes
Food & Beverage	High and growing	Consumers are avoiding artificial colors (E numbers).
Cosmetics	Moderate to High	Especially organic skincare, lipsticks, soaps.

Sector	Demand for Natural Colors	Notes
Textiles	Niche but growing	Artisanal textile dyeing and eco-fashion.
Crafts	Steady	Local artisans seek plant-based dyes for natural appeal.

### 3. Business Opportunities

- Small-scale extraction for local markets (e.g. sorrel or beetroot concentrate)
- **Export** of dried raw material for dye (turmeric, annatto)
- Partnerships with food processors and organic cosmetic brands
- Workshops or agro-tourism around natural dye-making

#### 4. Sources & Supply Chain

- Farms & Smallholders: Many of these crops are already widely grown in Jamaica.
- Markets: Coronation Market, local farmgate vendors, RADA-registered producers.
- Agencies for Support:
  - o RADA (Rural Agricultural Development Authority)
  - o MICAF (Ministry of Industry, Commerce, Agriculture & Fisheries)
  - Scientific Research Council (SRC)

#### 5. Challenges to Consider

- Short shelf life of fresh produce need preservation
- Scaling production of consistent-quality pigments
- Need for food-grade certifications
- Competition from imported natural colors

#### 6. Recommendations

- Focus on **sorrel, turmeric, beetroot**, and **annatto**—these have proven pigment power and local availability.
- Develop a pilot extraction lab to test yields, shelf stability, and applications.
- Target **eco-conscious brands and niche markets** in Jamaica and the Caribbean.
- Explore value-added products like pigment powders, concentrates, or cosmetic-grade extracts.

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