

Here's how to **turn liquid or fresh natural colorants into a powder form** to achieve that **6–12 month shelf life**. This method works best with colorants like **turmeric, beetroot, sorrel, annatto, and blue pea flower**.

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## How to Make Powdered Natural Colorants

**Goal:** Produce shelf-stable, portable, and export-friendly powdered colorants from fresh or extracted material.

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## Required Materials & Equipment

Item	Purpose
Fresh or concentrated extract	Starting material
Food dehydrator / oven	Drying the extract or pulp
Non-stick trays or sheets	For drying spreadable material
Grinder (coffee/spice mill)	To create fine powder
Sieve	For uniform particle size
Airtight jars or mylar bags	Long-term storage
Silica gel packets (optional)	Moisture control

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## Step-by-Step Powdering Process

### Option A: From Fresh Produce (e.g. turmeric, beetroot, annatto, blue pea flower)

#### 1. Prepare and Dry

- Wash, peel, and slice produce thinly.
- Dry slices using:
  - **Dehydrator:** 50–55°C (122–131°F) for 6–10 hours
  - **Oven:** Lowest setting with door ajar (check every hour)
  - **Sun drying:** In mesh trays under mosquito netting (3–5 days)

#### 2. Grind

- Use spice or coffee grinder to turn dried material into powder.

### 3. Sieve

- Sift the powder to remove fibrous particles and achieve uniform texture.

### 4. Store

- Place in **airtight containers** (preferably amber glass or mylar pouches).
  - Add a **silica gel packet** to control moisture.
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## Option B: From Liquid Extract (e.g. sorrel, beet juice, pea flower tea)

### 1. Reduce to Paste

- Simmer liquid over **low heat (not over 60°C)** until it thickens into a paste.
- Stir constantly to prevent burning.

### 2. Spread & Dry

- Spread paste thinly on **parchment-lined dehydrator trays** or silicone mats.
- Dehydrate at **50–55°C (122–131°F)** for 6–10 hours until fully dry and brittle.

### 3. Grind & Sieve

- Break into chips and grind into powder.
- Sift for consistency.

### 4. Store

- Keep in **cool, dry, dark location** in airtight packaging.
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## Shelf Life

Storage Condition	Shelf Life
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Airtight, dry container	6–12 months
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With silica gel packet	Up to 18 months
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Refrigerated (optional)	12+ months
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### **Tips for Success**

- Always **label containers** with date and batch number.
- Test for dryness: dried pieces should snap like crackers.
- Use **non-reactive tools** (plastic/glass/stainless steel) to protect color integrity.
- Avoid grinding near steam or humidity — moisture can ruin the powder.

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