COFFEE CHEMISTRY: ARABICA VS ROBUSTA

**ARABICA COFFEE BEANS**

- **World Production**: 70%
- **Altitude**: 600–2200 m
- **Rain**: 1200–2200 mm
- **Temperature**: 15–24 °C

**Caffeine Content**: 1.2–1.5%

**Chlorogenic Acid Content**: 5.5–8.0%

**Lipid (Fat) Content**: 15–17%

**Sugar (Sucrose) Content**: 6.0–9.0%

**Key Flavour Compounds**

- **Sotolon**
- **Abhexon**
- **Furaneol**

*These compounds give the coffee sweet caramel notes*

Arabica produces less coffee per hectare than robusta, and is consequently more expensive. It is also more susceptible to disease.

**ROBUSTA COFFEE BEANS**

- **World Production**: 30%
- **Altitude**: 0–800 m
- **Rain**: 2200–3000 mm
- **Temperature**: 18–36 °C

**Caffeine Content**: 2.2–2.7%

**Chlorogenic Acid Content**: 7.0–10.0%

**Lipid (Fat) Content**: 10.5–11.0%

**Sugar (Sucrose) Content**: 3.0–7.0%

**Key Flavour Compounds**

- **3,5-Dimethyl-2-ethylpyrazine**
- **2,3-Diethyl-4-methylpyrazine**
- **4-Ethylguaiacol**

*These compounds give the coffee spicy, earthy notes*

Robusta is considered to have a harsher, more bitter flavour compared to the smoother flavour of arabica. It is often used in blends.