

Source: Coffee | Markets and Trade | Food and Agricultural Organization of the United Nations (fao. org) | The United States Department of Agriculture | Infonet Biovision.

Watch out for:

- Berry borers and coffee rust. They are important indicators as to whether the coffee variety is suited to the site conditions.
- Increasing temperatures and reduced rainfall. Coffee yields have significantly reduced due to climate change.

Coffee is one of the most widely consumed beverages in the world and one of the most traded commodities globally. The largest coffee-producing countries are Brazil, Viet Nam, and Colombia, while the European Union and the United States of America are the largest consuming and importing markets globally. World coffee production for 2022/23 is forecast to rebound by 6.6 million bags from the previous year to 172.8 million due primarily to Brazil's Arabica crop entering the on-year of the biennial production cycle. Global consumption is expected to rise by 800,000 bags to 167.9 million, with the largest gains in the European Union, the United States, and Brazil. World coffee bean exports are forecast 3.0 million bags lower than 116.1 million as losses in Brazil, Vietnam, and India more than offset gains in Honduras and Colombia. Ending stocks are expected 1.5 million bags higher to 34.1 million.

The ideal temperature range for Arabica coffee lies between 18 and 24° C. Maximum day temperatures should not exceed 30°C and night temperatures should not fall below 15°C. At higher temperatures, bud formation and growth are stimulated. Low temperature or wide daily temperature variation may result in distortion, yellowing, and cracking of the leaves and tip growth, a condition known as "Hot and Cold" or crinkle heat. Arabica coffee is normally grown at altitudes from 1400 to 2000 m (4,500-6,800 ft) with rainfall of not less than 1000 mm per year. Where coffee is grown under conditions of minimum rainfall, mulching is essential to conserve moisture.

Robusta coffee is more resistant to pest infestation and is well adapted to warm and humid equatorial climates with average temperatures of 22-26°C, minimum not below 10°C at altitudes of 100-800 m, and well-distributed annual rainfall of 2000 mm or more. The ideal amount of rainfall lies between 1500 mm and 1900 mm. Coffee reacts positively to a drought period, which should nevertheless not be longer than 3 months. The rainfall should be evenly spread throughout the rest of the year. Irregular rainfall causes uneven blossoms and fruit maturity. Coffee is a half-shade plant, which can only utilize around 1% of the sunlight for photosynthesis. At leaf temperatures over 34° C, assimilation is practically zero, meaning that the rate of photosynthesis of a shaded plant is higher than that of a plant fully exposed to the sun.

Coffee prefers well-drained and airy soils. It needs free drainage to a depth of at least 1.5 m and 3 m in drier areas. Humus-rich, lightly acidic soils (pH range 4.4-5.4) are beneficial; the best conditions are those to be found on virgin soils of volcanic origin. The topsoil should contain at least 2% humus.