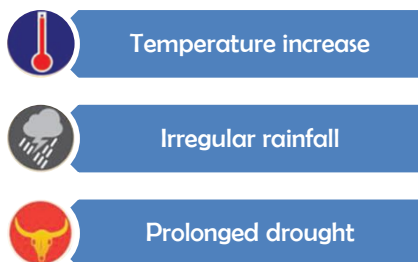


Cover Crops

Cover crops are grasses, legumes and other species that are planted between coffee rows. These crops form a natural coverage, whether alive or dead when cut, with the advantage to increase the soil's organic matter, provide more nutrients to the coffee and help to retain soil's moisture. They also regulate soil's temperature, avoiding that the soil becomes too hot and the coffee cultivation stops its metabolic activities, such as water and nutrients absorption.

Threats



Impacts



Species



Brachiaria brizantha



Crotalaria juncea



Dolichus lab lab

Step by Step

- 1 The cover crops must be sown at the start of the rainy season (October/November in Brazil). Prepare the soil between the coffee rows and plant the seeds in line or broadcast them on the top of the soil.
- 2 Care of the cover crops: species used should be hardy with low nutrient and water demands and do not need to be manured or irrigated.
- 3 With legumes, these must be cut when flowering. Lay the cut material on the soil which will protect it until it has decomposed into organic matter, which is beneficial to the soil.
- 4 In case of perennials such as *Brachiaria*, this must be cut three or four times during the yearly cycle. The material should be placed around the coffee stem to protect the soil and the nutrients from strong sun and heavy rainfall.
- 5 During long dry seasons, it is best to cover the ground with a thick layer of cut material to reduce evapotranspiration to a minimum.

Analyzing the effects of the cover crops, the c&c team noticed that there was an increase in soil's nutrients and organic matter. They also maintain the soil's moisture for prolonged periods, even when there is no frequent rainfall, because the soil does not get so hot. This generates higher coffee production, with plants that are greener and more vigorous.