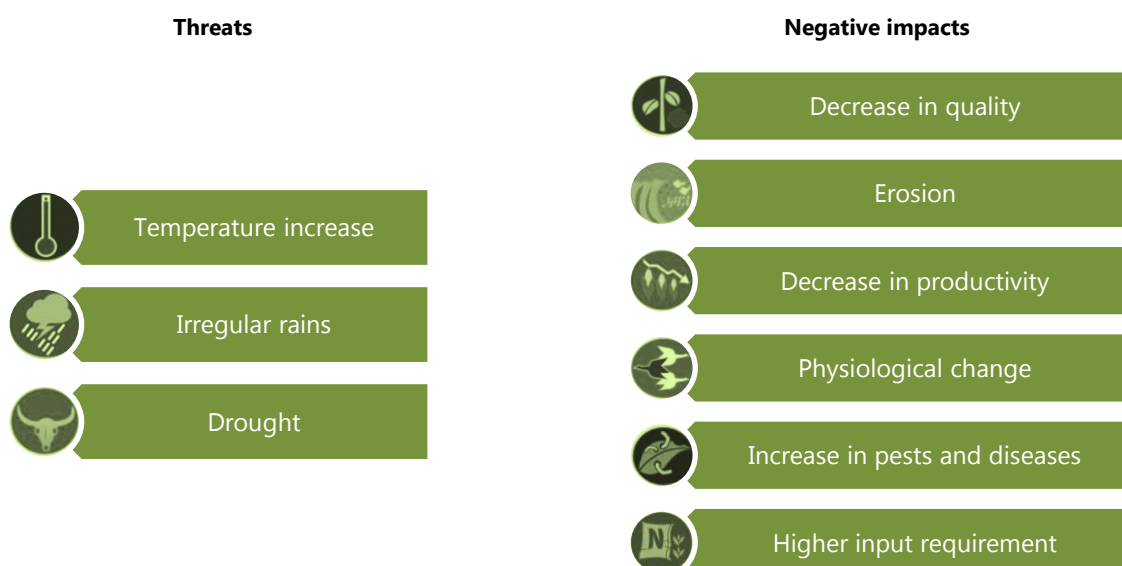


Adaptation tool: Cover crops

These crops generate a natural cover, whether live or dead (if they are cut), whose objective is to increase organic matter and the availability of nutrients, lower the temperature, improve biological life and retain more moisture in the soil, these characteristics will generate conditions so that the coffee crop does continues its basic metabolic activities such as the absorption of water and nutrients. The plants used as cover crops can be of different types, for example: grasses, legumes or other low-growing plants, which are good options for use between the coffee furrows without these generating competition for the development of the coffee.

Climatic conditions that warrant the establishment of cover crops



Promising species



Brachiaria ruziziensis

Crotalaria juncea

Cajanus cajan

Implementation step by step

- ❶ Cover crops should be planted at the beginning of the rainy season (May/June). The ground must be prepared by clearing the centre of the coffee furrow and establishing the cover in the centre.
- ❷ The cover to be selected should be hardy, with low nutrient and water demands and should not be fertilised.
- ❸ It is advisable to increase the distance between the furrows of coffee and reduce it between plants, in order to create conditions for the development of the cover and for the coffee crop.
- ❹ It is important to guarantee the quality of the seeds to be used as the cover. The use of cover will not necessarily increase the labour requirement, however it is advisable to monitor its development constantly.
- ❺ Both legumes and perennial plants (e.g. *Brachiaria*) must be cut before flowering. It is important that the residue of the cover be placed under the coffee plant, allowing its incorporation as organic matter and the creation of a barrier to facilitate moisture retention and temperature control of the soil.

The comparisons of plots established with cover crops show a lower temperature, higher percentage of soil moisture and better conditions which generate a greater development of the coffee plant. HRNS continues to investigate the positive impact of the use of cover crops on coffee quality and granulometry.