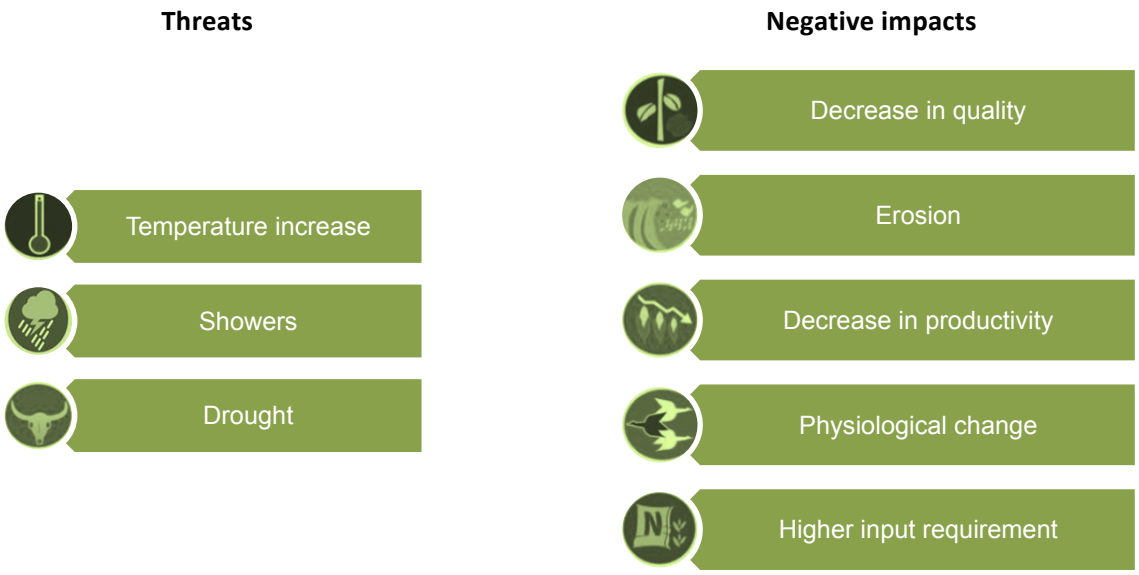
Temporary shade

These crops are plants that have a faster growth than the species used for permanent shade and therefore are effective in providing that function while the permanent shade is established. Among the benefits generated can be mentioned the decrease in soil and ambient temperature, improvement of biological activity and moisture in the soil, increase in organic matter and availability of nutrients in the soil. These conditions allow the coffee crop to continue its basic metabolic activities such as the absorption of water and nutrients even under extreme external conditions. The plants used as temporary shade are shrubby and mostly leguminous, although the use of species from other families is not restricted.

Climatic conditions that warrant the establishment of cover crops



Promising species

Tephrosia vogelii

Cajanus cajan

Crotalaria sp

Implementation step by step

- Temporary shading should be planted at the beginning of the rainy season (May/June). The soil must be prepared by cleaning it and then planting 2 to 3 seeds per position with a distance of one position every 1 metre between plants and every other furrow (This may vary depending on the amount of shade to be generated).
- It is important to guarantee the quality of the seeds to be used as the cover.

- The species to be used for temporary shade must generate a crown, be hardy, have a low nutrient and water demand, and should not be fertilised.
- Shape pruning should be undertaken to generate a crown of at least 1.5 metres in height. Residue from the shade can be placed under the coffee plant, as this will generate organic matter and will create conditions of moisture retention and regulate the temperature in 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 temporary shade on coffee quality and granulometry.