

**Hypothesis and objectives.** We hypothesize that integrating the three practices outlined above will enable year-round production of healthy keets at high hatchability rates. We will test this hypothesis through the following specific objectives:

### Objectifs :

We propose to promote guinea fowl production by combining three established practices of:

- All year round feeding of birds supplemented with fly larvae for increased productivity;
- Synchronized hatching of guinea fowl eggs by chicken, to produce many keets at once, yielding lower cost keets, among other advantages; and
- Low-cost evaporative cooling egg storage, while waiting for enough eggs to accumulate, for increased fertile egg viability.

**Specific objective one.** Produce fly maggots and establish the optimum percentage of fly maggot meal (protein) in guinea fowl diet with respect to growth and egg production.

**Specific objective two.** Establish the efficacy of integrating three practices of insect larvae production for bird feed supplement (objective one results), evaporative cooling for eggs' storage, and synchronized (or programmed) egg hatching, under Burkina Faso climatic conditions, for year round production of healthy keets.

### GEOGRAPHICAL LOCATION OF THE RESEACH SITE

This experiment is conducted at the ASUDEEC market gardening training center in the village of Gampela, at the eastern exit of the city of Ouagadougou, central part of Burkina Faso. As located? the site is characterized by a Sudano-Sahelian climate: two distinct seasons, all dominated by the harmattan, a dry wind blowing from the Sahara towards the Atlantic Ocean. These seasons are:

- A dry season of 7 months, which is subdivided into a dry and cold period from November to February, and a dry and hot period from March to May;
- A wet and cool season marked by the monsoon, a wet wind blowing from the Atlantic towards the African continent and characterized by irregular and very varied rainfall. This season runs from June to October in central Burkina Faso.

The daylight duration extends from 11h 16min on December 21 to 12h 45min on June 21.

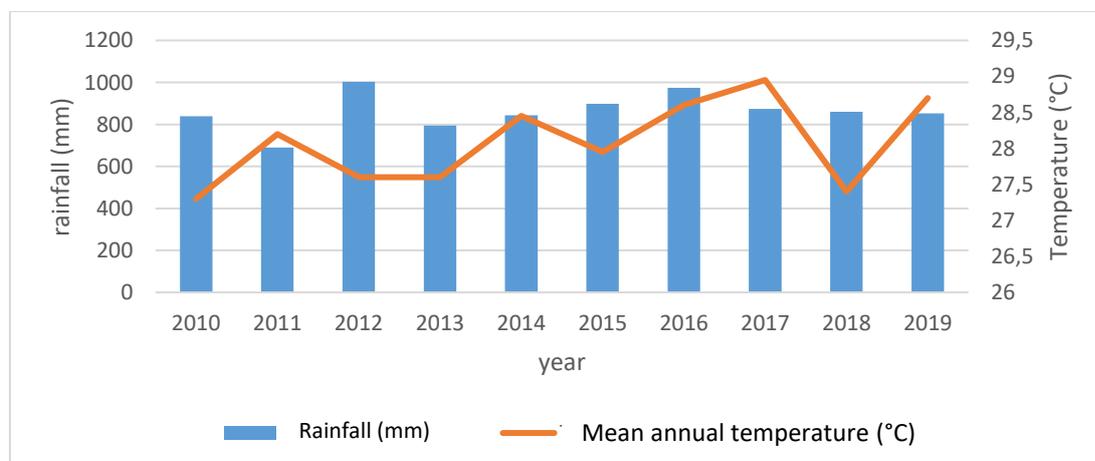


Figure1 : Evolution of rainfall and mean annual temperature: 2010-2019