2.0 METHODOLOGY

The research methodologies utilised in this study are described in the next section, with particular emphasis on the determination of the ash value, the assessment of antioxidant activity using the DPPH assay, and the examination of minerals using Atomic Emission Spectroscopy (AES). These techniques were selected in order to assess the antioxidant capacity and mineral composition of both organic and non-organic bananas.

2.1 Sample Collection and Preparation

Both non-organic and organic bananas were bought from Tesco in order to guarantee accurate and dependable preparation of banana samples for laboratory examination.

2.1.1 Materials

- Organic and non-organic bananas
- Oven for drying
- Knife
- Analytical balance
- Grinding apparatus
- Storage containers

2.1.2 Procedure

Collection: Sainsbury's UK supermarket provided both organic and non-organic bananas.

Preparation: After peeling and chopping the bananas into uniform slices, they were dried at 105°C in an oven to remove all moisture and reach a steady weight.

Grinding: Using a grinder, the dried samples were reduced to a fine powder, guaranteeing a consistent result for all tests that followed.

Storage: Before analysis, the powdered banana powder was kept out of the air in airtight containers to avoid contamination and moisture absorption.