**Image Repository Composition:**

* Total Image Count: 15,444
* Species and Conditions Represented:
* **Bambusoideae** (Healthy: 129, Leaf Burns: 344)
* **Carica papaya** (Healthy: 273, Leaf Spots: 1315)
* **Citrus limon** (Healthy: 132, Leaf Blight: 235, Mosaic Virus: 1864)
* **Dracaena spp.** (Healthy: 72, Leaf Spots: 38)
* **Hibiscus L.** (Healthy: 157, Leaf Burns: 128, Mosaic Virus: 2205)
* **Litchi chinensis** (Aceria litchii: 317, Healthy: 157, Leaf Bites: 181, Leaf Blight: 236)
* **Malpighia emarginata** (Healthy: 430)
* **Mangifera indica** (Healthy: 253, Leaf Spots: 371)
* **Myrciaria glazioviana** (Healthy: 215, Leaf Bites: 143, Leaf Burns: 320)
* **Persea americana** (Leaf Bites: 185, Leaf Spot: 296, Seco: 365)
* **Eugenia uniflora** (Healthy: 300, Leaf Blight: 309)
* **Plectranthus barbatus** (Healthy: 303, Leaf Bites: 54)
* **Plinia cauliflora** (Healthy: 468, Leaf Bites: 278)
* **Psidium guajava** (Healthy: 149, Leaf Bites: 254, Leaf Burns: 232)
* **Roseira canina** (Leaf Spot Noise: 124, Less Noise Leaf Bites: 45, Healthy More Noise: 680, Healthy Less Noise: 248)
* **Tabebuia roseo-alba** (Healthy: 109, Leaf Bites: 248, Leaf Spots: 375)
* **Zantedeschia aethiopica** (Healthy: 115, Leaf Bites: 319, Leaf Burns: 473)

**Camera Specifications for T3C Model:**

* **Spatial Resolution**: 384 x 288
* **Pixel Pitch**: 17μm
* **Spectral Response**: 8-14μm
* Frame Rate: 25Hz
* **Measuring Range**: -20°C to +120°C (Switchable to high accuracy mode from 10°C to 50°C)
* **Measurement Accuracy**: ±2°C or ±2% of the reading in room temperature mode; ±0.5°C in high accuracy mode for target temperatures 35°C to 45°C

**Thermal Image Capture Procedure**

The thermal imaging dataset was collected in the Sorocaba region of São Paulo using a stationary T3C thermal camera. The camera was set in a controlled environment for 20 minutes before image capture to allow the bolometer to adjust to the ambient temperature, reducing thermal drift. Leaves were positioned on the ground to ensure images reflected only the leaf temperature profiles without environmental interference. The captured images were validated with the phytopathologist Dr. Antonio Carlos from UNESP.

Captures occurred at various times throughout the day, under temperatures both below and above 25°C, to add variable noise levels to the dataset. This procedure aimed to facilitate analysis of the images. The images were recorded in the PNG format and in greyscale.