



## agriculture & rural development

Department:  
Agriculture and Rural Development  
PROVINCE OF KWAZULU-NATAL

### Makhathini Research Station

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Makhathini Research Station is located in the far northern area of the Umkhanyakude District Municipality. This station is located on the Makhathini Flats, approximately 20 km north east of Jozini, south-east of the Pongola river and 16 km downstream from the wall of the Jozini Dam, which is adjacent to the town of Jozini. The station was established to serve the Makhathini Irrigation Scheme.

**Postal address:**

Private Bag X004, Jozini, 3969

**Physical address:**

Makhathini Research Station

Telephone : 035-572 5303

Situation: S27° 23' 42 45

E32° 10' 48 48

Elevation: 73 m

Rainfall: 720 mm

Topography: Flat

Size: 440 ha



## **THE PAST**

The Makhathini Research Station is divided into two properties: (i) The Lower, which is 162 hectares in extent and lies in the flood plain of the Pongola River, and (ii) The Upper, 6 kilometers further to the east, on the sandy soils. This portion is approximately 160 hectares in extent. In 1961 an inter-Departmental Commission was appointed to determine what research facilities would be necessary and where they should be located. Once the land was demarcated, development of the research stations commenced in 1964.

Irrigation water became available for use on the research lands and in 1966, experimentation in the form of adaptation trials commenced. The establishment of the Makhathini Research Station was to provide a base for research into irrigation methods, drainage and fertilizer requirements for the four major soil types. Crops such as sugarcane, cotton, lucerne, groundnuts, rice, vegetables and tropical and sub-tropical horticultural crops were to be evaluated on these irrigated lands.

Field crops which showed great promise included sugarcane, cotton, lucerne, rice, groundnuts, spring wheat (grown in winter), vegetables and tropical and sub-tropical horticultural crops. Insect pests and diseases were serious and required close control.

## **NATURAL RESOURCE INFORMATION**

The Bioresource Group (BRG) for the upper portion of this research station is BRG 22 (Lowveld). These Lowveld areas generally lie below 450 m sea level with flat to undulating topography. A single Bioresource Unit (BRU) is found within this BRG, namely Ra1 (Makatini). The lower portion of the Research station lies within two BRGs; BRG 22 (Lowveld) and BRG 23 (Sandy Bush and Palm Veld). A small area in the north-east corner of the upper portion falls into BRU Ra1 (Makatini), with the majority of the area falling into BRU RSa2 (Tshongwe).

Mean annual rainfall for this area is between approximately 588 and 635mm and this falls mostly in the summer months.

Mean maximum January temperature for this farm is 32°C, while mean minimum July temperature is 10°C. No frost is experienced at Makhathini.

Water resources in this area are extremely limited and are poorly distributed, although the farm benefits from being bordered by the Pongolo River, which can be used for irrigation and livestock water.

### **RESEARCH STATION PROGRAMME**

There are three research components at the Research Station, namely crop production, animal science and aquaculture, with farm services as the support component. The Agricultural Research Council (ARC) and others also use Makhathini for their research programmes as guest researchers.

More detail is supplied under the relevant research directorates.