

# GRASSPRO

## Southern Africa



By Frits van Oudtshoorn  
and SmartSearch Apps



Endorsed by the Grassland Society  
of Southern Africa and  
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**GrassPro Southern Africa** is a smart mobile device that helps you to identify grasses and provides a wealth of ecological and agricultural information on each species. It has a huge content-rich database that contains written and taxonomic information, distribution maps, illustrative photographs and other useful content for you to learn and enjoy.

What sets this app apart is that it filters and ranks your grass species list during a search, using the innovative, intuitive and interactive award-winning “Smart Search” function. It further includes GPS functionality to indicate the grass species occurring in your immediate vicinity.

GrassPro is a collaborate initiative by grass expert Frits van Oudtshoorn and well-known app developer SmartSearch apps. It was officially launched on 26 July 2023 during the 58<sup>th</sup> annual congress of the Grassland Society of Southern Africa (GSSA).

## How to get the app

To start, search for “Grasspro” and download the app from your mobile app store. This first download will install the free version (evaluation version) with 50 sample species for you to test. After this step, you can upgrade to the full version, which contains all the common grass species in southern Africa. This is done through “purchase options”, by clicking on the button just below the app title (GRASSPRO) on the home screen and following the instructions. GrassPro currently costs only R 199.99/year, which gives you free access to all future expansions and upgrades. GrassPro is available from the following app stores (click to link):



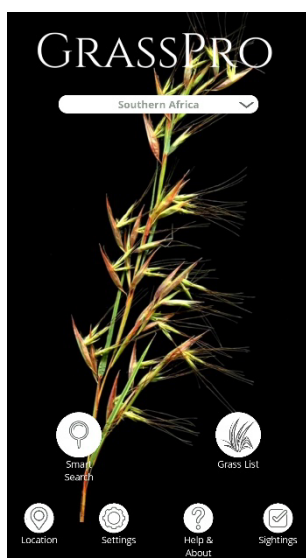
Google Play



App Store

Below follows some insight on the app functions and content ↓:

### 1. The home screen

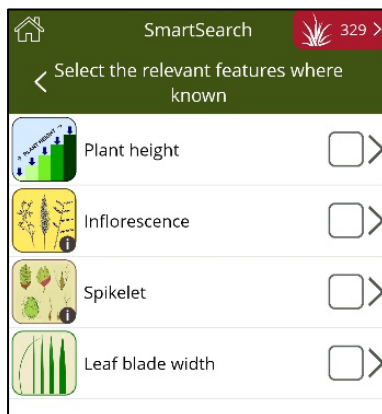
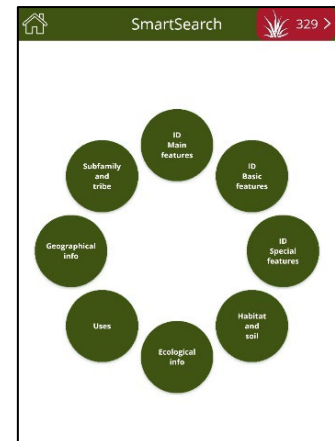


The home screen is your passage to all the functions and settings on the app. These include the Smart Search identification tool, access to the whole grass list, location settings, settings for language, the help & about section and access to your sightings lists.



## 2. Smart search (home screen)

Grass identification is made easy with the smart search function. You can identify a grass using various features (plant height, inflorescence type, spikelet type, leaf width, etc.). Going through this process will bring up a list of grass “candidates”, which is arranged from most to least likely the grass you want to ID.



The smart search function also allows you to create grass lists, and combined lists, on features such as uses (pasture grasses, ornamental grasses, thatching grasses, lawn grasses, etc.), ecological info (grazing value, plant succession, ecological index, weeds and invaders), geographical status (endemic, indigenous and non-indigenous), world distribution, taxonomic ranking (subfamily and tribe).

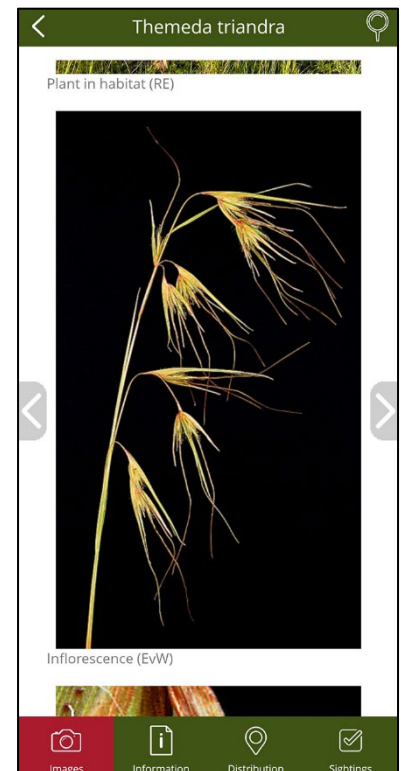
## 3. Grass list (home screen)

The grass list button takes you to a list of all grasses on the app (or a list of grasses in your area if you set your location). The names on the list can be alphabetically arranged according to the scientific name or common name of your choice. The list shows the inflorescence photo of a grass and a range of icons below the name. These icons provide information at a glance and include grazing value, ecological status, plant succession, life cycle, growth form, geographical status, grass uses and weediness. Touching an icon will bring up a description of the icon group.

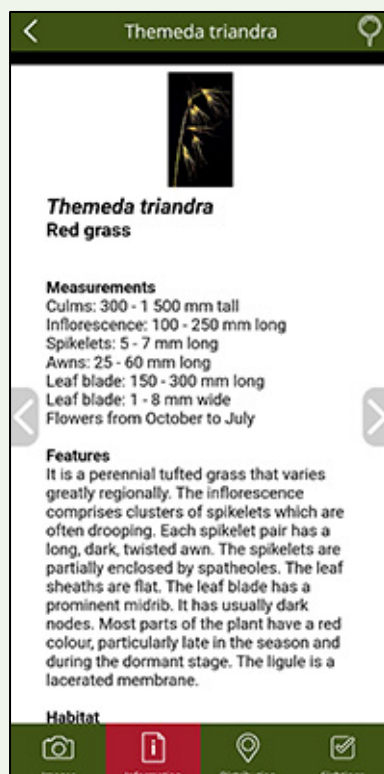


#### 4. Species info (grass list)

Touching the inflorescence in the grass list brings up the grass species information. The species information includes a range of photos, a species description, a map showing its distribution range and the option to record the grass on your personalised sightings list. Each species has 3 - 10 excellent photos illustrating the whole plant, the inflorescence, spikelets and other diagnostic features.



#### 5. Grass descriptions (species info)



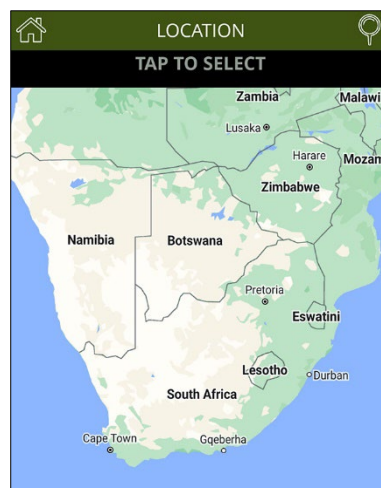
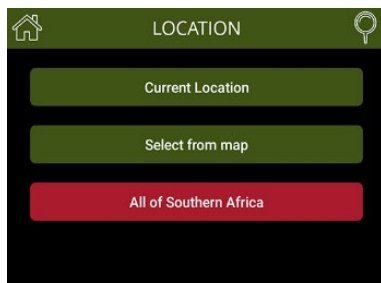
Each species has a description that provides information on its main features for identification, how to distinguish it from similar-looking species, the habitat in which it grows, uses and grazing value, distribution in the world, measurements, and common names in various languages. It further includes a summary of ecological info, geographical info, habitat and soils, identification features and taxonomic classification at the bottom of each description.

## 6. Distribution maps (species info)

Each species in the app has a distribution map indicating its distribution range in southern Africa (south of the Zambezi and Kunene rivers). The countries included, in alphabetical order, are Botswana, Eswatini, Lesotho, Namibia, Mozambique, South Africa and Zimbabwe.



## 7. Location button (home screen)

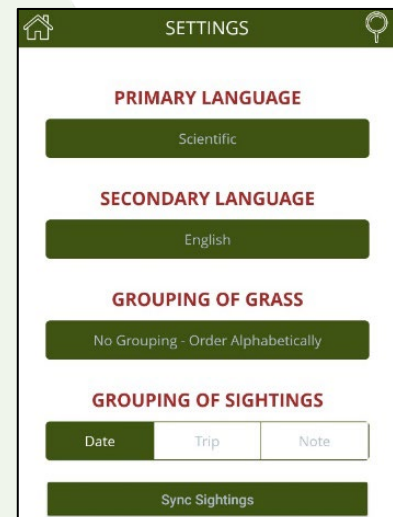


The location button brings up the different location function options. These include your current location, selecting a location from the map (by tapping on the map) or the whole of southern Africa. When selecting your current location, or selecting a location from the map, the app only considers, for identification, the grasses occurring in your chosen location. The “all of southern Africa” option includes all the grasses in the app.



## 8. Settings button (home screen)

The settings button allows you to choose a language for listing grasses in the app. Two names are shown with each grass in a grass list, the primary name and the secondary name. The primary name can be set to the scientific name, English name or Afrikaans name (the only languages that have names for all grasses in the app). The secondary name can be set to a choice of 28 southern African languages.

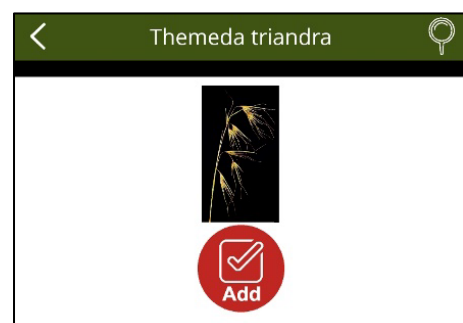


## 9. Help & About button (home screen)

The Help & About section provides all the information you need about the app and how it works. It includes an introduction to the Grass family as well as the app, how to use the app, contact details, credits to people involved, legal matters, references and a glossary of terms used in the app.

## 10. Sightings button (home screen)

You can additionally add species to one or more sightings lists. The last button on the home screen, sightings, takes you to your sightings lists, which shows all the grasses you have previously recorded on a list.



## 11. Additional information provided

The images below show more info available and features to be used for identification, in the SmartSearch function.

SmartSearch
324 >

< The common uses recorded for grass species in our region i

Natural pasture ☐ Planted pasture ☐ Ornamental grass ☐ Erosion control ☐ Cereal, beverages or famine food ☐ Thatch and screens ☐ Brooms ☐ Mats, hats and baskets ☐ Turf or lawn grass ☐

SmartSearch
329 >

< The main habitat where the grass prefers to grow and occurs in relatively high numbers

Disturbed areas ☐ Wet and damp areas ☐ Plains ☐ Rocky slopes ☐ Gravelly soil ☐ Shade ☐ Cultivated cropfields ☐ Shallow soils ☐

SmartSearch
329 >

< The preferred soil type in which a specie grows

Sandy ☐ Loamy ☐ Clayey ☐ Various soils ☐

Uses

Habitat

Soil type

SmartSearch
329 >

< The grazing value of a species based on its quantity and quality of grazing available i

High ☐ Moderate ☐ Low ☐

SmartSearch
329 >

< How common the species occurs in Southern Africa i

Common ☐ Locally dominant ☐ Locally common ☐ Frequent ☐ Infrequent ☐ Rare ☐

SmartSearch
329 >

< Select the relevant features where known

Knee-like bent nodes ☐ Wiry leaves ☐ Long rhizomes present ☐ Inflorescence branches whorled ☐ Stolons present ☐ Curly dry leaves (wiry) ☐ Curly dry leaves (expanded) ☐ Hairy nodes ☐ Leaf sheaths compressed ☐

Grazing value

Frequency of occurrence

Diagnostic features

SmartSearch 329 >

< Select the relevant features where known

**GROWTH FORM** Growth form ☐ >

**LIFE CYCLE** Life cycle ☐ >

**C4 C3** Growth season ☐ >

**Ligule type** Ligule type ☐ >

↑

Basic ID features

SmartSearch 329 >

< The historical geographical status of a species

**Endemic** ☐

**Indigenous** ☐

**Non-indigenous** ☐

↑

Geographical status

SmartSearch 329 >

< Declared weeds and invasive species

**Declared invasive species** ☐

**Weed** ☐

↑

Weeds and invasive species

THE END