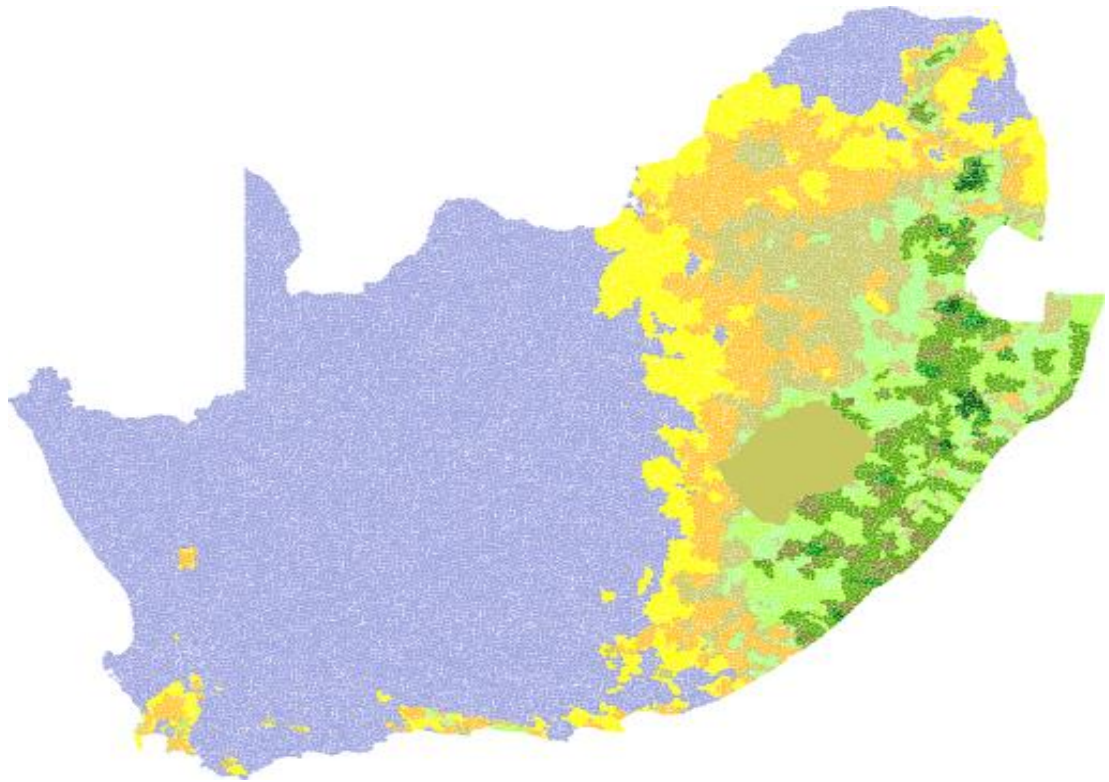
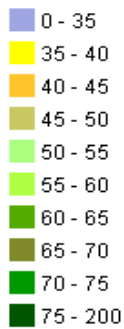


Sugarcane Yield Estimation

Legend

Sugarcane Yield (t/ha)



Author(s): Derived from Schulze, R.E, Hull, P.J and Maharaj, M (2007)

Date: 2007

Meta-Data

Title	<i>Sugarcane Yield Estimates per Mesozone</i>
File Name	<i>meso_tha_sugarcane_wgs84.shp</i>
Author(s)	<i>Derived from Schulze, R.E, Hull, P.J and Maharaj, M (2007)</i>
Publication Date	<i>2007</i>
Citation	Schulze, R.E., Hull, P.J. and Maharaj, M. 2007. Sugarcane Yield Estimation. In: Schulze, R.E. (Ed). 2007. South African Atlas of Climatology and Agrohydrology. Water Research Commission, Pretoria, RSA, WRC Report 1489/1/06, Section 16.3.
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Abstract	<p>*Data shows sugarcane yield estimates for South Africa allocated to mesozones.</p> <p>*South Africa is ranked 13th in the world (SA Yearbook, 2005) as a producer of sugarcane. Average sucrose content of the South African crop is approx 13.5%, varying from 11.9 - 13.8% and inversely related to the year's rainfall. It takes approximately 8.5 tonne sugarcane to produce 1 t sugar, varying from 8.3 - 10.0 t (SASA, 2005). Of the cane under irrigation, 72% is in KwaZulu-Natal (mainly Pongola and Mfolozi flats) and the remaining 28% in Mpumalanga (Statistics SA, 2002). Estimation of Sugarcane Yield was with the ACRU-Thompson Model equation which related sugarcane water use (total evaporation) to yield as $Y_{sc} = 9.53(E_{an} / 100) - 2.36$ and where Y_{sc} = annual sugarcane yield (t/ha), and E_{an} = annual total evaporation (mm).</p> <p>*Data was derived from the following sources: Base mesozone dataset, obtained from the CSIR Geospatial Analysis Platform (GAP) Sugarcane yield estimates were derived from Schulze, R.E, Hull, P.J and Maharaj, M (2007)</p>
Keywords	agriculture, crops, mesozones, sugarcane, yield estimation
Caveats	http://bea.dirisa.org/resources/metadata-sheets/WP03_00_MEATA_SUC.pdf
Web Meta-Data	
Web Resource	http://app01.saeon.ac.za:8086/geoserver/BEA/wms?service=WMS&version=1.1.0&request=GetMap&layers=BEA:meso_tha_sugarcane_wgs84&styles=&bbox=16.45192000002853,-34.83416989569373,32.89253174669768,-22.12503000000106&width=512&height=395&srs=EPSG:4326&format=application/openlayers

Methodology/ Protocol

Processing/ Provenance	As described above
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Important Attributes

MESO_ID	Meso-zone ID
Area_MB_ha	Mesozone area, ha
sugarc_irr	Irrigated sugarcane yield estimates, t/ha
sugarc_dry	Dry sugarcane product yield estimates, t/ha

References and Sources

[1]	Schulze, R.E., Hull, P.J. and Maharaj, M. 2007. Sugarcane Yield Estimation. In: Schulze, R.E. (Ed). 2007. South African Atlas of Climatology and Agrohydrology. Water Research Commission, Pretoria, RSA, WRC Report 1489/1/06, Section 16.3.
[2]	Base Mesozone Dataset: http://196.21.191.61:8085/geoserver/GAP/wms?service=WMS&version=1.1.0&request=GetMap&layers=GAP:meso_2010_base_wgs84&styles=&bbox=16.4519200000285,-34.8341698956937,32.8925317466977,-22.1250300000011&width=512&height=395&srs=EPSG:4326&format=application/openlayers
[3]	Geospatial Analysis Platform. 2015. GAP. [ONLINE] Available at: http://www.gap.csir.co.za/ . [Accessed 30 March 2015].
[4]	Sugarcane Yield Potentials: http://196.21.191.61:8082/geoserver/BEEH_shp/wms?service=WMS&version=1.1.0&request=GetMap&layers=BEEH_shp:yldirrigdry.shp&styles=&bbox=16.469,-34.834,32.891,-22.124&width=512&height=396&srs=EPSG:4326&format=application/openlayers