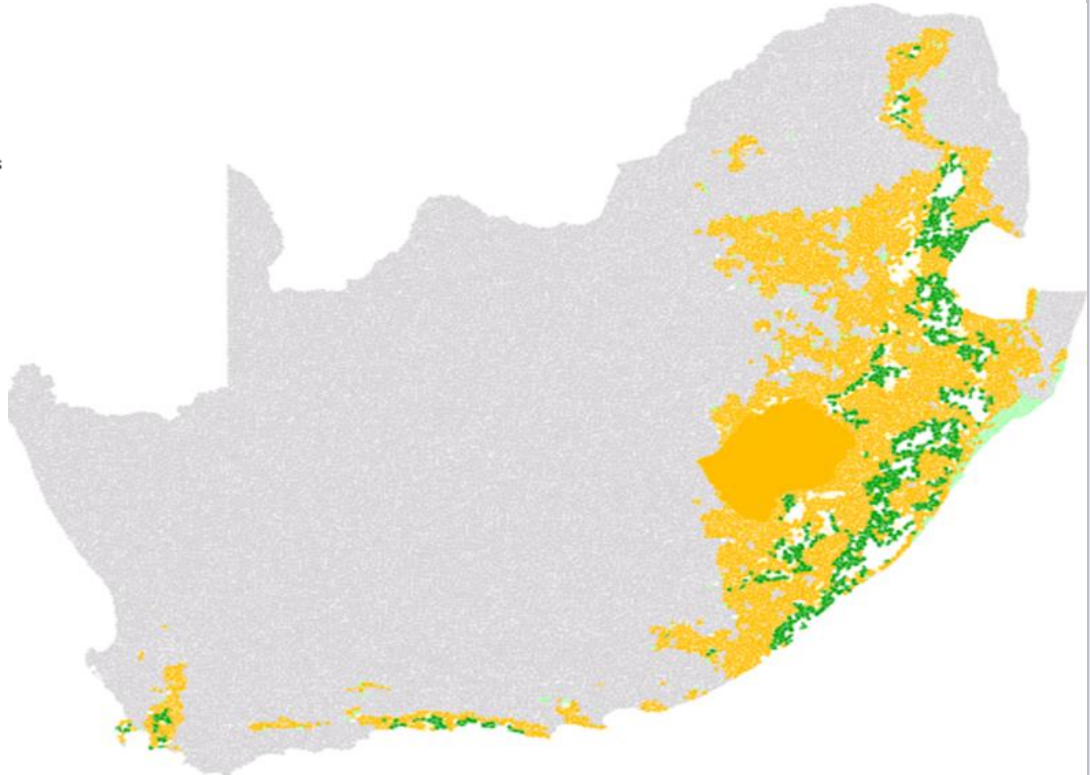| THEME: PLANNING YIELD POTENTIALS	Prepared by: Wim Hugo, SAEON

Pinus taeda Growth Areas

Legend
Pinus-taeda Growth Areas

- 🟩 Optimum
- 🟨 Moderate Risk: Drought
- 🟧 High Risk: Too Dry
- 🟩 Slow Growth Rate
- ⬜ Outside Climatic Bounds
- ⬜ Moderate Risk: Frost
- ⬜ High Risk: Snow
- 🟦 High Risk: Frost
- 🟦 High Risk: Snow/Frost
- ⬛ High Risk: Disease
- 🟥 High Risk: Pest
- 🟫 High Risk: Pest/Disease
- ⬛ Moderate Risk: Mortality

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

Date: 2007

Meta-Data

Title	*Pinus taeda growth areas allocated to mesozones*
File Name	*Join_meso_base_and_pin_tae_int_pt.shp*
Author(s)	*Derived from Schulze, R.E and Maharaj, M (2007)*
Publication Date	*2007*
Citation	Schulze, R.E. and Maharaj, M. 2007. Pinus taeda Growth Areas and 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 18.8.
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Abstract	*The dataset shows climatically optimum growth areas and yield estimates of Pinus taeda allocated to mesozones. Yield estimates were derived from Schulze R.E. and Maharaj M. (2007) and then allocated to mesozones by combining with a base mesozone layer obtained from the CSIR Geospatial Analysis Platform (GAP).* *The map shows the climatically optimum growth areas to be along the north coast of the Eastern Cape, significant tracts in the midlands of KwaZulu-Natal, and parts of Mpumalanga. Major climatic growth constraints are drought related. Highest Mean Annual Increments (MAIs), according to Smith's (1994) equations, are 20 - 22 t/ha/annum and these coincide with the climatically optimum growth areas.*
Keywords	*agriculture, biomass, growth areas, mesozones, pinus taeda, yield estimation*
Caveats	http://bea.dirisa.org/resources/metadata-sheets/WP03_00_META_TAE.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:Join_meso_base_and_pin_tae_int_pt&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*

Important Attributes

MESO_ID	Meso-zone ID
AVG_GRID_C	*Pinus taeda* growth areas and yield estimates, t/ha

References and Sources

[1]	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
[2]	Geospatial Analysis Platform. 2015. GAP. [ONLINE] Available at: http://www.gap.csir.co.za/. [Accessed 30 March 2015].
[3]	*Pinus taeda* Growth Areas: http://196.21.191.61:8085/geoserver/GAP/wms?service=WMS&version=1.1.0&request=GetMap&layers=GAP:Join_meso_base_and_pin_tae_int_pt&styles=&bbox=16.4519200000285,-34.8341698956937,32.8925317466977,-22.1250300000011&width=512&height=395&srs=EPSG:4326&format=application/openlayers
[4]	Schulze, R.E. and Maharaj, M. 2007. *Pinus taeda* Growth Areas and 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 18.8.