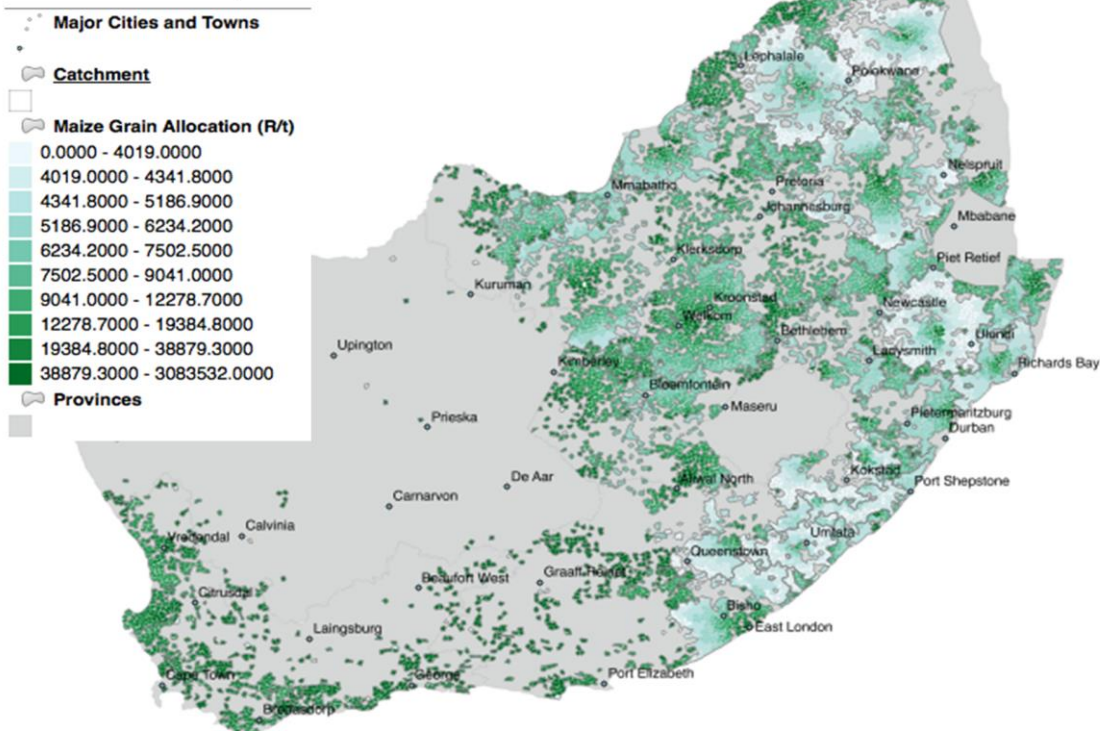


Fermentation of Maize Grain to n-Butanol

Maize Grain - Optimal Cost and Location for Processing



Author(s): Hugo, W

Date: 2015



Meta-Data

Title	<i>Fermentation of Maize Grain to n-Butanol</i>
File(s)	<i>WP10_07_MAI_ETH_02.shp, WP10_07_MAI_ETH_02_catch.shp</i>
Author(s)	<i>Hugo, W</i>
Publication Date	<i>2015</i>
Citation	<i>Hugo, W. 2014. Feasibility of BioEnergy production in South Africa, BioEnergy Atlas for South Africa, DST/SAEON 2014, Section WP10_04</i>
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Abstract	<p><i>* Technical Challenges - Technology is relatively simple and has high conversion efficiency.</i></p> <p><i>* Cost Challenges - Despite efficiency, levelised costs are high, due to mainly 2 factors (1) the input cost of raw material is high, and (2) operating costs are high due to feedstock (methanol) and distillation operations. Selling oilcake has a significant effect on final product cost, with a 50% oilcake internal subsidy reducing the costs by R 6,500/ t (0.65 R/kWh). This would bring production cost into line with current range of diesel prices.</i></p> <p><i>* Environmental Challenges - Greenhouse gas savings are significant provided land use changes are carbon neutral. Limiting cultivation to subsistence cropland should assist with this goal.</i></p> <p><i>* Social and Institutional Challenges - Conversion of subsistence farmers in former homeland areas, with high reliance on cattle and maize, to a cash crop with side products for own consumption and cattle feed will require significant community involvement. Cooperative farming and marketing channels need to be investigated.</i></p>
Keywords	<i>butanol, fermentation, feasibility, grain, maize, model outputs</i>
Caveats	http://bea.dirisa.org/resources/metadata-sheets/WP10_07_META_MAI.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:WP10_07_MAI_BUT_02&styles=&bbox=16.451920000028533,-34.83416989569374,32.892531746697685,-22.125030000001036&width=512&height=395&srs=EPSG:4326&format=application/ope

Methodology/ Protocol

Processing/ Provenance	<i>As described above</i>
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Important Attributes

MESO_ID	Meso-zone ID
PRICOST	Maize Grain - Optimal Cost and Location for Processing, R/ton
ALLOC	Catchment ID

References and Sources

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