BIO-ENERGY TIMES

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Dear Readers,

A fact sheet, recently published by the UN World Meteorological Organization (WMO), has recorded 2010 as the warmest year on record together with 2005 and 1998. The report has presented a set of stunning facts about climatic trends for the year 2010..

- *In 2010, the global average temperature was 0.53°C above the mean for the period from 1961 to 1990 -- the reference period for WMO.*
- *Arctic sea-ice cover in Dec'10 was the lowest on record, with an average monthly extent of 12 mn sq.km. (1.35 mn sq.km. below the 1979-2000 average for December)*
- *2010 was an "exceptionally warm" year over much of Africa and southern and western Asia, and in Greenland and Arctic Canada, with many parts of these regions having their hottest years on record. December was exceptionally warm in eastern Canada and Greenland.*
- *It was "abnormally cold" through large parts of northern & western Europe, with monthly average temperatures as much as 10° C below normal at some locations in Norway and Sweden. Many places in Scandinavia had their coldest December on record.*
- *The year witnessed many devastating natural calamities including monsoonal floods which affected 20 mn people in Pakistan and severe heat waves in Russia. Some of the major weather events in late 2010 and early 2011 were the floods in January in Sri Lanka affecting more than 800,000 people, the flash floods resulting in over 700 deaths near Rio de Janeiro, and the severe flooding in eastern Australia which was the most costly natural disaster in the region's history.*

These are clear indications of the imbalance in nature and signal the need for urgent and drastic remedial action, without which it is indeed likely that catastrophes such as earthquakes, floods, severe temperature mismatches, and so on, would be the order of the day, causing severe damage to human and other life forms.

We, at BECI, are committed to generating support for such a movement towards responsible action, and would keep sharing with our readers knowledge and information of transformational thinking and initiatives that can contribute to the cause of a cleaner, greener and safer world.

Thank You.

Please post your feedback on Bio-Energy Times @ **http://www.bioenergyindia.org/frmsendnewsfeedback.aspx**

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Policy Initiatives

India

CII:Price of jatropha-based bio-diesel should be raised to support industry's sustainability efforts

www.commodityonline.com/news/Raise-price-for-bio-diesel-from-jatropha—India-ministry-35338-3-1.html;www.siliconindia.com/shownews/Biodiesel_price_to_be_hiked_by_Rs_10__per_litre_CII-nid-76523.html

The study estimates that if the industry becomes sustainable and achieves 2% growth in blending of bio-diesel by 2011-12, it can save around INR3,000 crore and generate about INR5,500 crore of revenue for the rural economy.

Mumbai Metropolitan Region Development Authority to build waste facility at Taloja, Ambernath and Shil Phata

www.hindustantimes.com/Development-body-identifies-three-sites-for-dumping-waste/Article1-645785.aspx

Lahore District Government launches the privatization process of SWM in Lahore

www.onlinenews.com.pk/details.php?id=174166

Pimpri and Chinchwad Municipal Corporation receives Rs 12 crore for SWM

www.timesofindia.indiatimes.com/city/pune/PCMC-gets-Rupees-12-cr-for-solid-waste-management/articleshow/7238423.cms

PCMC has received grant under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) scheme. PCMC has also implemented a 30-tonne capacity vermicomposting plant and mechanical composting project at the Moshi garbage depot.

International Finance Corporation to invest $300mn in Gujarat and Rajasthan for RE project

www.business-standard.com/india/news/ifc-eyes-funding-to-green-projects-in-gujarat/420447/

HCC signs agreement with Gujarat Government to develop RE park in Dholera

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/gujurat-invests-2-55bn-in-renewable-energy-park.html

The Government has invested $2.55bn towards development of the park.

Environment Minister includes industry in Advisory Council for environmental clearances

www.business-standard.com/india/news/jairam-to-include-industry-in-advisory-council-for-environmental-clearances/422352/

The Council will meet once in three months and examine suggestions on changes required in policy for faster clearance of issues related to environment and forest.

IREDA will enter into an agreement with German, Japanese Banks

www.cleantechnica.com/2011/01/09/german-japanese-banks-to-offer-630-million-in-renewable-energy-loans-to-india/

The agreement will provide $630mn loan to promote RE projects in India.

India, World Bank to deepen cooperation on India's Green Agenda

www.advertisertalk.com/india-world-bank-to-deepen-cooperation-on-india%E2%80%99s-green-agenda-19344.zhtml

Policy Initiatives

North America

INEOS Bio and New Planet Energy to receive $75mn from USDA

www.smartplanet.com/business/blog/intelligent-energy/usda-loans-75m-for-bioenergy-project/4224/

The 6MW biopower facility will create 8mn gallons of biofuel/year using vegetative waste, wood wastes and MSW in Florida.

USDA commits total $571mn biofuel loan guarantees

www.reuters.com/article/2011/01/20/idUS116215309020110120;www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/diamond-green-diesel-gets-241m-doe-loan-guarantee.html

Through this investment USDA will provide

- $250mn to Coskata's bioethanol plant fuelled by woody biomass having capacity of 55mn gallons per year.
- $80mn to Enerkem for bioethanol plant fulled by MSW having capacity of 10mn gallon per year.
- $241mn to Diamond Green Diesel plant having capacity of 137mn gallons of biofuel per year from animal fats and used cooking oil.

Minnesota producers receive $7,48,000 from USDA to develop next generation of biofuels

www.publicnewsservice.org/index.php?/content/article/18043-1

USDA grants $300K to Maine's wood pellet companies to boost biofuel production

www.mainebiz.biz/news47440.html

Construction of $3.5mn biogas plant at University of Wisconsin

www.jsonline.com/business/112809279.html;www.dailycardinal.com/news/usda-grant-uw-researchers-4-7-million-1.1913805

The system will use 8000 tons/year of organic waste to produce 5-10% of University's electricity. University has received $232,587 from Wisconsin Focus on Energy and $500,000 from the Federal Government. The University has also received $4.7mn for bioenergy research from USDA.

State Commissioner of Public Lands: Washington should make jet fuel from wood waste

www.blog.seattlepi.com/aerospace/archives/235265.asp

UN launches $200mn environmental recovery programme in Haiti

www.caribbean360.com/index.php/business/136103.html

Federal and Manitoba Governments invest $25,000 in waste management research

www.solidwastemag.com/issues/story.aspx?aid=1000400050

The CleanFARMS™ research will investigate better ways to collect and manage the province's agricultural waste. The Manitoba Ministry of Agriculture, Food and Rural Initiatives is providing $15,000 for the project through the Agriculture Sustainability Initiative of Growing Forward, a federal-provincial-territorial initiative. Manitoba Conservation is contributing the remaining $10,000.

Obama: US to produce 80% of country's electricity from RE by 2035

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/obama-sets-2035-clean-energy-goal.html

USDA grants $40mn to develop climate- change tolerant plants, bioenergy sources

www.sacbee.com/2011/01/12/3319339/uc-davis-granted-40m-to-develop.html

DoE grants $4.17mn to Wilton for energy saving program

www.acorn-online.com/joomla15/wiltonbulletin/news/localnews/80935-wilton-joins-green-challenge.html

Policy Initiatives

Europe

EU approves JV between Shell and Brazil's Cosan to produce biofuel
www.monstersandcritics.com/news/business/news/article_1609263.php/EU-approves-biofuel-joint-venture-between-Shell-and-Brazil-s-Cosan

The JV would act as a supplier of bio-ethanol to the downstream market of ex-refinery, non-retail, and retail sales of motor fuels, where Shell is active.

Bulgaria prepares Waste management Act
www.novinite.com/view_news.php?id=124396

The act will set goals for Municipalities to recycle at least 50% of household waste and 70% of construction waste.

UK firm and Aberdeenshire Council to develop £60mn waste recovery park
www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=217&listitemid=57098&section=waste_management

The park will treat 100,000 tonnes of residual waste-a-year. It will include a mechanical biological treatment facility, an in-vessel composting unit and a gasification plant, which can produce electricity for National Grid.

Africa

Help Self Help Centre (HSHC) and World Bank to construct bio-diesel plant in central Kenya
www.nation.co.ke/business/news/-/1006/1084086/-/5jdmgsz

Kwara State University receives $15.3mn research grant from UNESCO
www.vanguardngr.com/2011/01/123614/

Ghana Government to inject 10% of RE into the National Energy grid by 2020
www.gbcghana.com/index.php?id=1.195472

Other Countries

China, Scotland sign £6.4mn waste-to-energy deal
www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/china-scotland-sign-waste-to-energy-deal.html

Sabah Government seeks to establish more power generation plants fuelled by oil palm waste
www.thestar.com.my/news/story.asp?file=/2011/1/19/nation/7827926&sec=nation

Thailand includes RE on national agenda
www.commodityonline.com/news/Thailand-includes-renewable-energy-on-national-agenda-35475-3-1.html

India

Biopower plant to be set up in Fatehullar village of Ghazipur, UP
www.timesofindia.indiatimes.com/city/varanasi/Biomass-based-plant-empowering-villagers/articleshow/7335587.cms

The 15MW, INR 150 crore power plant has achieved power load factor of 99.94% in the 1st year of its commercial operation in 2010.

Construction of 2 tons biogas plant at Urwa market, Mangalore
www.timesofindia.indiatimes.com/city/mangalore/The-power-of-waste/articleshow/7255625.cms

Cerebra Integrated Technologies Ltd to set up India's largest e-waste plant in Bangalore
www.expressbuzz.com/cities/bangalore/india%E2%80%99s-largest-e-waste-plant-to-be-in-bangalore/236957.html

The unit will handle 90,000 tonnes of e-waste.

Amtek Auto, Autech form JV for vehicle manufacturing for waste management sector
www.automobiledistribution.automotive-business-review.com/news/amtek-auto-autech-form-jv-for-vehicle-manufacturing-240111

India to implement pilot project on RE in Egypt
www.business-standard.com/india/news/india-to-implement-pilot-projectrenewable-energy-in-egypt/123120/on

The aim of the project is to enhance bilateral cooperation and encourage the Indian private sector to participate in developing the clean energy sector in Egypt.

North America

Kaua'i Island Utility Cooperative inks biopower purchase deal from Koloa
www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/kauai-island-utility-cooperative-inks-biomass-power-purchase-deal.html

American Renewables secures feedstock supply deal with Rayonier for 100MW biopower plant
www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/american-renewables-secures-feedstock-deal-for-100mw-biomass-plant.html

Applied Concepts for Energy Corp. to receive $100mn from private US-based organization
www.biodieselmagazine.com/articles/7531/nx-global-to-develop-canadian-us-algae-projects

The funds will be used to construct a waste-to-energy and algae facility in Canada. A portion of funding could be used to fund the acquisition of a 2mn sq-foot greenhouse in Virginia.

Construction of Greenwave biodiesel plant at Fort Lauderdale, Florida
www.biodieselmagazine.com/articles/7509/raptor-announces-startup-of-greenwave-biodiesel-plant

Energy Innovation to set up biodiesel plant fuelled by flax in Toronto
www.af.reuters.com/article/energyOilNews/idAFN1328394920110114
www.automotiveworld.com/news/environment/85489-canada-energy-innovation-to-set-up-biodiesel-plant

Qteros Inc., and Praj Industries to build bioethanol plant in Chicopee
www.masslive.com/business/republican/index.ssf?/base/business-6/1294647527242240.xml&coll=1

Syntroleum signs an agreement with Tyson Foods to convert animal fats into biodiesel
www.azocleantech.com/details.asp?newsID=13882

Business & Markets

Aina Koa Pono LLC invests $320mn to develop biofuel

www.bigislandvideonews.com/2011/01/10/video-heco-aina-koa-pono-sign-biofuel-deal-for-kau

From the investment the company will develop a farm by growing energy crops like sweet sorghum and eucalyptus, Christmas berry and guinea grass for biofuel.

Renewable BioSystems LLC sold oil extractor to pull oil from waste streams for biodiesel

www.domesticfuel.com/2011/01/07/extractor-to-pull-oil-from-waste-streams-for-biodiesel/

The system will be able to turn 500,000 gallons of yellow grease into oil for biodiesel feedstock each year and could be scaled-up to more than 5mn tons of oil annually.

Ben & Jerry's factory to convert ice cream waste into energy

www.treehugger.com/files/2011/01/ben-jerrys-factory-convert-ice-cream-waste-into-energy.php

The production will provide 40% of the factory's energy requirement.

Europe

Metso to supply biopower plant in Estonia

www.steelguru.com/raw_material_news/Metso_to_supply_biomass_power_plant_in_Estonia/184890.html

The plant will use a combination of spruce bark, chipped logging residues and wood chips or milled peat as the main fuels to produce 15MW of heat and 6.4MW of electricity.

Evonik & HES Biopower to build CHP plant fuelled by wood waste in England

www.biomassmagazine.com/articles/5227/biomass-chp-plant-proposed-in-england

The plant will generate 35MW of steam, 25MW of electricity by utilizing 160,000 metric tons of nonrecyclable wood waste.

24,000 m^2 biogas park in Germany

www.powergenworldwide.com/index/display/articledisplay/1659722238/articles/powergenworldwide/distributed-generation/cogeneration-chp/2011/01/microturbine-chp_plant.html

Stockholm receives title of “Ecological capital of the European Union” in 2010 for utilizing electricity from waste

www.live-pr.com/en/stockholm-utilizes-electricity-produced-from-r1048689844.htm

Mabanaft starts trading wood pellets to capitalize on steady growth in Germany

www.bloomberg.com/news/2011-01-18/mabanaft-starts-trading-wood-pellets-to-capitalize-on-growth.html

Zorg to build tentatively 1MW biogas plant in Ukraine fuelled by corn and grass silo

www.bioenergy-news.com/index.php?/Industry-News?item_id=3144

Latin America

Havana Energy and Zerus S.A to develop 30MW, $250mn biopower plant in Cuba

www.bioenergy-news.com/index.php?/Industry-News?item_id=3122

Texas-based Fluor Corp. to build $120mn waste-to-ethanol facility for Fulcrum BioEnergy in Nevada

www.bizjournals.com/sanfrancisco/news/2011/01/06/fulcrum-bioenergy-inks-two.html

Fulcrum BioEnergy Inc has signed an agreement with Waste Management of Nevada & Waste Connections Inc to provide MSW for the plant.

Business & Markets

Africa

Kenya plans to manufacture energy conserving building blocks in Nairobi
www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/kenya-in-talks-to-establish-green-building-factory-in-nairobi.html

Other Countries

Japan's largest 33MW wood based-biopower plant to be set up in Kanagawa Prefecture
www.shimbun.denki.or.jp/en/news/20110118_02.html;www.bioenergy-news.com/index.php?/Industry-News?item_id=3124

The plant is jointly owned by Sumitomo Joint Electric Power Co. Ltd., and two other companies.

Pepsi-Cola Products Philippines Inc.to build $8mn, 3.4MW biopower plants in Philippines
www.abs-cbnnews.com/business/01/20/11/pepsi-build-8-m-biomass-power-plants-philippines

Solutions Using Renewable Energy (SURE) will construct 1.2MW, $2.7mn biopower plant in La Union. Power Source Energy Services, Inc also plans to build a 2.2MW, $4.5mn unit in Cagayan de Oro.

Bank for Agriculture and Agricultural Cooperatives and Bangchak Petroleum Plc to grow oil palm trees
www.bangkokpost.com/business/economics/216721/baac-bangchak-to-grow-oil-palm-trees

The state bank will allow the company to lease 1,200 rai (1 rai=1600 sqm) of degraded tangerine orchards in Nakhon Nayok province to grow oil palm for its biodiesel production facility at Ayutthaya.

Construction of $3mn algae-to-biofuel plant in Karratha
www.abc.net.au/news/stories/2011/01/28/3124190.htm

Construction of algae-based fuel plant in Shoalhaven
www.abc.net.au/news/stories/2011/01/14/3112956.htm?site=illawarra&section=news&date=%28none%29

Sime Darby Plantation and Mitsui Engineering and Shipbuilding Co. to set up bioethanol plant in Malaysia
www.malaysianews.net/story.php?rid=41695037&ht=Malaysias-Sime-Darby-Japans-Mitsui-Engineering-sign-biofuel-deal

The plant will process 1.25 metric tons of empty fruit branches into bioethanol.

Quantum Power Ltd to set up 500KW biogas plant in Beaudesert, Queensland
www.ecogeneration.com.au/news/quantum_power_biogas_to_electricity_project/054026/

China IE to build 50,000 ton/year 2nd gen biodiesel plant fuelled by agriculture waste
www.biodieselmagazine.com/articles/4624/china-ie-to-build-second-gen-plant/

United Nations Military Observer Group awards $500,000 waste management contract to Waste Busters
www.brecorder.com/news/general-news/pakistan/1144953:news.html

Finance & Investments

India

Tata Chemicals invests $15mn for biofuel production in Mozambique
www.macauhub.com.mo/en/news.php?ID=10898

North America

Renewable Power seeking to secure $560mn to generate 125MW of electricity
www.uk.ibtimes.com/articles/20110119/exclusives-biomass-developer-seeking-560m-for-125-mw-portfolio.htm

Top 5 Clean-tech investment firms invested $771mn in 2010
www.siliconindia.com/shownews/Top_5_Cleantech_investment_firms_close_69_deals-nid-77011.html

Energy Innovation Corp to raise $18.13mn to support 8 of its biodiesel plants
www.uk.ibtimes.com/articles/20110118/exclusive-canadian-biofuel-startup-looking-to-raise18m.htm

Europe

Seeger AG to invest €300bn for RE in Germany
www.bloomberg.com/news/2011-01-07/seeger-expects-300-billion-euros-investment-in-renewable-energy-faz-says.html

Guinness Asset Management to invest £10mn in UK
www.newenergyworldnetwork.com/renewable-energy-news/by-technology/solar/guinness-launches-renewable-energy-eis-fund-to-target-uk-fits.html

The fund will invest in RE companies that qualify for the country's feed-in tariffs.

Latin America

Iowa receives $1.4mn for RE
www.wqad.com/news/sns-ap-ia--bioenergyfunding,0,4863600.story

Africa

Al Maskari backs $3bn Libya RE hub
www.newenergyworldnetwork.com/renewable-energy-news/by-technology/solar/al-maskari-backs-3bn-libya-renewable-energy-hub.html

Other Countries

Sonangol and ENI invest in biofuels projects
www.portalangop.co.ao/motix/en_us/noticias/economia/2011/0/3/Sonangol-and-ENI-invest-foodstuff-and-biofuels-projects,97a13eac-10de-4639-ab93-c8f6f275283b.html

India

IndianOil and LanzaTech to jointly explore biofuels technology
www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/indianoil-and-lanzatech-to-jointly-explore-biofuels-technology.html

Indian Institute of Petroleum to produce LPG, biodiesel from plastic waste
www.timesofindia.indiatimes.com/city/pune/LPG-diesel-from-plastic-waste-soon-a-reality/articleshow/7329978.cms

North America

Culinary Institute of America produces waste vegetable oil-based biodiesel
www.biodieselmagazine.com/articles/7551/culinary-institute-of-america-produces-wvo-based-biodiesel

Springboard Biodiesel LLC.. launched 50th BioPro system into educational market
www.biodieselmagazine.com/articles/7543/springboard-sells-50th-biopro-system-into-educational-market

The system is designed to convert feedstocks into 50-100 gallons of ASTM- quality biodiesel every two days.

Construction of research organization in California to focus on jatropha biodiesel
www.domesticfuel.com/2011/01/11/new-california-center-to-focus-on-jatropha-biodiesel/

Florida Biodiesel, Inc. launches technology to lower methanol requirements of biodiesel plants by 5%
www.pr-usa.net/index.php?option=com_content&task=view&id=592991&Itemid=31

University of Alabama at Huntsville's has a solution to biodiesel waste
www.examiner.com/science-news-in-birmingham/uah-has-a-solution-to-biodiesel-waste

The university has developed the bacteria (Clostidium pasteurianum) that can convert the crude glycerol byproduct of biodiesel production into butanol, propanediol, ethanol, acetic acid, and butyric acid.

University of Illinois: Biofuel crops grown on marginal lands could produce up to half of world's current liquid fuel consumption without impacting crops
www.favstocks.com/study-finds-that-biofuel-crops-grown-on-marginal-lands-could-produce-up-to-half-of-worlds-current-liquid-fuel-consumption-without-impacting-crops/1031048/

Europe

German Research Centre for Biomass: GHG level in rapeseed-based biodiesel varies from 29g CO_2 equ./MJ biodiesel to 21g CO_2e /MJ biodiesel
www.biofuels-news.com/industry_news.php?item_id=3105

Other Countries

Dulsco introduces Radio Frequency Identification technology for waste management at ADNEC
www.pressreleasenetwork.com/newsroom/news_view.phtml?news_id=3412

Under the pilot project, all trucks, compactors, bins, and waste skips at Abu Dhabi National Exhibition Centre (ADNEC) are embedded with RFID tags that provide complete data on the waste management activity. This data can be accessed online by the ADNEC and Dulsco team enabling better control and coordination in managing waste.

Climate Change & Environment

India

ADAG group's VC fund invests in cleantech firm AllGreen
http://news.oneindia.in/2011/01/12/adaggroups-vc-fund-invests-in-cleantech-firmallgreen-aid0126.html

Construction of research center in the Atlantic region to study climate change
http://news.oneindia.in/2011/01/12/siballays-foundation-stone-of-research-base-inantarctica-aid0126.html

Prince Charles to develop eco-town in India
www.mnn.com/lifestyle/arts-culture/blogs/prince-charles-planning-giant-eco-town-in-india

The development will take place on the outskirts of either Calcutta or Bangalore. The facility includes sustainable building materials, rainwater harvesting and recycling, as well as improved sanitation and waste facilities.

Europe

PepsiCo sets a target of reducing carbon emissions by 50% before 2015
http://www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/pepsico-uk-sets-out-green-goals.html

Deep sea trenches could play a key role in climate change as it contains more carbon
http://www.dailymail.co.uk/sciencetech/article-1347870/Deep-sea-trenches-play-key-role-climate-change.html?ito=feeds-newsxml

Other Countries

Weather Bug app launches global sensor network to track GHG
http://www.reuters.com/article/idUS359029730820110112

The network will track both carbon and methane emissions and will provide detailed reports.

Abbreviations Used

mn - Million | bn - Billion | RE - Renewable Energy | BTL - Biomass-To-Liquid | CDM - Clean Development Mechanism | CCS - Carbon Capture & Storage | BCAP - Biomass Crop Assistance Program | MSW - Municipal Solid Waste | AD - Anaerobic Digestion | WTE - Waste - to - Energy

earth essentials

PREMIUM

PLANT NUTIRTION & SOIL ENHANCER

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Earth Essentials is a balanced blend of 100% bio-organic materials that provides essential plant nutrition, enhances soil health and fertility, and protects your plants from insects and diseases. It promotes healthy growth and longevity of the plants, grass, and kitchen gardens.

Sustained Nutrient Release Improved Soil & Plant Health

No Bad Odour Easy Handling & Application

Total Plant Nutrition N:P:K:Ca:Mg

Promotes
- Flowering
- Fruiting
- Greener leaves
- Stronger stems
- Root growth

Soil Health & Fertility Organic matter, Organic carbon & micro flora

Promotes
- Soil aeration
- Enhances soil texture
- Nutrient uptake
- Moisture Absorption
- beneficial bacterial activity

Plant Protection Insect and pest repellent

Boosts
- plant immunity
- Protects against soil borne diseases
- Protects against nematodes

COMPOSITION

MACRO-NUTRIENTS	
Nitrogen	2.8 – 3.0%
Potassium	2.0 – 2.5%
Phosphorous	2.0 – 2.5%
Calcium	2.0 – 2.5%
Magnesium	1 – 1.5%
Sulphur	4 - 5%
MICRO-NUTRIENTS	
Zinc	0.80%
Copper	0.74%
Iron	1.00%
Manganese	1.50%
ORGANIC CONTENT	
Organic Matter	> 70%
Organic Carbon	> 35%
C:N Ratio	**15 – 20:1**

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