

Data Set Number 158: Estimation of nutrient removal through crop production of three villages in Fakara/Niger 2004-2005

Identification_Information:

Citation:

Citation_Information:

Originator: Keiichi Hayashi

Publication_Date: 20050912

Title: Estimation of nutrient removal through crop production of three villages in Fakara/Niger 2004-2005

Geospatial_Data_Presentation_Form: tabular digital data

Series_Information:

Series_Name: Report of Intermediate Evaluation Meeting for JIRCAS-ICRISAT collaborative Project

Issue_Identification: pp24-31

Publication_Information:

Publication_Place: Japan

Publisher: JIRCAS

Online_Linkage: \\Isc-

svr01\GeoNetwork\fakaradatabase\h.keiishi\estimation of nutrient removal through crop production of three villages in fakara\Estimation of nutrient removal through crop production of three villages in Fakara.dbf

Description:

Abstract: 5 households in Banizoumbou, Tchigo Tegui and Ko Dey of Fakara were taken in order to conduct the survey and we surveyed 17 farms in terms of recycling activity. Mean of transport, frequency, sort of sources, quantity were determined. Quantity of recycled materials was estimated based on the information and its quality is being determined through labo analysis. Results showed tha the frequency of application was 222times in average and applied amount as well as applied area was 1215m3/ha, 0.41 ha, respectively. However, the content of transported manure was occupied largely by sand (47%) and 20% was occupied by low and not decomposable materials. Only 33% of whole materials were occupied by cow dung. This should be also taken into account for the quality improvement on this management.

Purpose: To obtain quantitative information on recycling system in order to evaluate organic resource mobilization in agriculture

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2004

Ending_Date: 2005

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 2.583333

East_Bounding_Coordinate: 2.866667

North_Bounding_Coordinate: 13.583333

South_Bounding_Coordinate: 13.333333

Data_Set_G-Polygon:

Data_Set_G-Polygon_Outer_G-Ring:

G-Ring_Point:

G-Ring_Latitude: 13.52775
 G-Ring_Longitude: 2.66024
 G-Ring_Point:
 G-Ring_Latitude: 13.50950
 G-Ring_Longitude: 2.77607
 G-Ring_Point:
 G-Ring_Latitude: 13.50219
 G-Ring_Longitude: 2.63092

Keywords:
 Theme:
 Theme_Keyword_Thesaurus: None
 Theme_Keyword: Local soil fertility management
 Theme_Keyword: Recycling system
 Theme_Keyword: Millet production

Place:
 Place_Keyword_Thesaurus: None
 Place_Keyword: Banizoumbou
 Place_Keyword: Tchigo Tegui
 Place_Keyword: Ko Dey
 Place_Keyword: Fakara
 Place_Keyword: Niger
 Place_Keyword: West Africa

Access_Constraints: Restricted
 Use_Constraints: Restricted
 Point_of_Contact:
 Contact_Information:
 Contact_Person_Primary:
 Contact_Person: Keiichi Hayashi
 Contact_Organization: JIRCAS
 Contact_Address:
 Address_Type: mailing
 Address:
 City: 1-1 Ohwashi, Tsukuba
 State_or_Province: Ibaraki
 Postal_Code: 305-8686
 Country: Japan
 Contact_Voice_Telephone: +81-29-838-6355
 Contact_Voice_Telephone: +227-20722529/ 20722626
 Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp
 Contact_Electronic_Mail_Address: k.hayashi@cgiar.org
 Hours_of_Service:
 Contact_Instructions: Prefer contact by email address

Native_Data_Set_Environment: Microsoft Excel; dBase; ESRI ArcCatalog
 9.0.0.535

Cross Reference:
 Citation_Information:
 Originator: Gandah, M., Brouwer, J., Hiernaux, P. and Van
 Duivenbooden, N
 Publication_Date: 2003
 Title: Fertility management and landscape position: farmers?
 use of nutrient sources in western Niger and possible improvements

Series_Information:
 Series_Name: Nutrient Cycling in Agroecosystems
 Issue_Identification: 67: 55-66

Publication_Information:
 Publication_Place: Netherlands
 Publisher: Springer

Cross_Reference:

Citation_Information:

Originator: Williams T.O., J.M. Powell & S. Fernández-Rivera

Publication_Date: 1995

Title: Manure availability in relation to sustainable food crop production in Semi-Arid West Africa: evidence from Niger.

Series_Information:

Series_Name: Quaterly J. Int. Agr.

Issue_Identification: 34: 248258

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report: 19 farms of 15 Jerma households in three villages

Quantitative_Attribute_Accuracy_Assessment:

Attribute_Accuracy_Value: Number of household, farm and sample of transported manure

Attribute_Accuracy_Explanation:

Banizombou vilage; 1 farm (BBZ9) with 1 sample, 1 farm (BBZ39) with 1 sample, 1 farm (BBZ23) with 1 sample, 1 farm (BBZ70) with 1 sample, 1 farm (BBZ67) with 1 sample

Tchigo Tegui vilage; 2 farms (TTF3) with 1 sample, 1 farm (TTF6) with 1 sample, 1 farm (TTF70) with 1 sample, 1 farm (T7) with 1 sample, 1 farm (TTF8) with 1 sample

Ko Dey vilage; 2 farms (KK61) with 1 sample, 1 farm (KK46) with 1 sample, 3 famrs (K122) with 1 sample, 1 famr (KK15) with 1 sample, 1 farm (KK31) with 1 sample

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: Bationo et al

Publication_Date: 1995

Title: A critical review of crop-residue use as soil amendement in the West AfricaIn; Powell JM, Fernandez-Riveras S, Williams TO and Renard C (Eds) Livestock and nutrient cycling in mixed farming systems of sub-saharan Africa

Edition: unknown

Process_Step:

Process_Description: Data were collected through an interview by questionnaire in three villeges and were input into spreadsheet of Excel and processed by Excel

Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Keiichi Hayashi

Contact_Organization: JIRCAS

Contact_Address:

Address_Type: mailing and physical

Address: Japan International Research Center for Agricultural Sciences

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Contact_Voice_Telephone: +227-20-722529

Contact_Electronic_Mail_Address: khayash@jircas.affrc.go.jp

Contact_Electronic_Mail_Address: k.hayashi@cgiar.org

Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Point
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: Area point
 Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: Estimation of nutrient removal through crop
 production of three villages in Fakara
 Attribute:
 Attribute_Label: OID
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that
 are automatically generated.
 Attribute:
 Attribute_Label: C1
 Attribute_Definition: First Farmer name
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C2
 Attribute_Definition: Second farmer Name
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C3
 Attribute_Definition: Household number
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C4
 Attribute_Definition: Code of village
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C5
 Attribute_Definition: Identification
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C6
 Attribute:
 Attribute_Label: C7
 Attribute_Definition: mgt
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C8
 Attribute_Definition: Distance
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C9
 Attribute_Definition: mgt**
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C10
 Attribute_Definition: Whole area (ha)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C11

Attribute_Definition: Non cultivated area 05 (ha)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C12
 Attribute_Definition: Cultivated area 05 (ha)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C13
 Attribute_Definition: Number of head Bundle
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C14
 Attribute_Definition: Number of stem bundle
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C15
 Attribute_Definition: Production of millet head (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C16
 Attribute_Definition: Production of millet (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C17
 Attribute_Definition: Estimate of millet stem prod # (kg ha-1)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C18
 Attribute_Definition: Removal of tige* (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C19
 Attribute_Definition: Remained tige in the field (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C20
 Attribute_Definition: Total dry matter removed* (kg)
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C21
 Attribute_Definition: N removal* (7.87g/1kg DM) kg
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C22
 Attribute_Definition: P removal *(0.84g/1kg DM) kg
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C23
 Attribute_Definition: N remained* (7.87g/1kg DM) kg
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C24
 Attribute_Definition: P remained *(0.84g/kg DM) kg
 Attribute_Definition_Source: Keiichi Hayashi
 Attribute:
 Attribute_Label: C25
 Attribute_Definition: Total dry matter removed* (kg)

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C26

Attribute_Definition: N removal* (7.87g/1kg DM) kg

Attribute_Definition_Source: Keiichi Hayashi

Attribute:

Attribute_Label: C27

Attribute_Definition: P removal *(0.84g/1kg DM) kg

Attribute_Definition_Source: Keiichi Hayashi

Overview_Description:

Entity_and_Attribute_Overview:

the table contains attributes as listed below about the area, the biomass, production and the recycling system of mineral element:

Whole area*** (ha)

Non cultivated area 05 (ha)

Cultivated are 05 (ha)

No. botte epi 05

No. botte tige 05

Production of millet head (kg)

Production of millet(kg) Estimate of millet stem prod # (kg ha-1)

Removal of tige* (kg)

Remained tige in the field (kg)

Total dry matter removed* (kg)

N removal* (7.87g/1kg DM) kg

P removal *(0.84g/1kg DM) kg

N remained* (7.87g/1kg DM) kg

P remained *(0.84g/kg DM) kg

Total dry matter removed* (kg)

N removal* (7.87g/1kg DM) kg

P removal *(0.84g/1kg DM) kg

Entity_and_Attribute_Detail_Citation:

The dataset contains superficies of cultivated and non cultivated area, the number of Epis and stem; Production of millet; the estimate of millet stem production; Removal of tige.

we has also the transfer of organics matter in the fields based on survey.

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Japan International Research Center for Agricultural Sciences (JIRCAS)

Contact_Address:

Address_Type: mailing and physical

Address: Ohwashi, Tsukuba, Ibaraki, 305 8686 JAPAN

Country: JAPAN

Contact_Voice_Telephone: +81 29 838 6330

Contact_Facsimile_Telephone: +81 29 838 6316

Contact_Electronic_Mail_Address: head@ml.affrc.go.jp

Hours_of_Service: 9:00am to 6:00pm j+8

Contact_Instructions: <http://www.jircas.affrc.go.jp>

Resource_Description: Downloadable Data

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: dBase

Format_Version_Number: 4

Transfer_Size: 0.041
Metadata_Reference_Information:
Metadata_Date: 20070117
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: ICRISATSC
Contact_Person: AMADOU M.Laouali
Contact_Position: Consultant
Contact_Address:
Address_Type: mailing and physical address
Address: BP: 12404
City: Niamey
Country: Niger
Contact_Voice_Telephone: 0022720722626
Contact_Electronic_Mail_Address: a.m.laouali@cgiar.org
Hours_of_Service: 8h00 am - 16h00 pm z+1
Contact_Instructions: prefer to be contact by email address
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Access_Constraints: Restricted
Metadata_Use_Constraints: Restricted
Metadata_Security_Information:
Metadata_Security_Classification_System: none
Metadata_Security_Classification: Unclassified
Metadata_Security_Handling_Description: none
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata Profile