Agriculture OpenData API URI Schema

Tables: farms, crops, prices

Query Format: **http://data/org.jm/api**/[table_ident]/?([col_ident] [delim] [$var])

Table	Column
Crops	– FarmerId – PropertyId – Parish – Extension – District – Farm (?) – FarmSize* (micro, small, medium, medium-large, " ") – FarmerAge – Group – Crop group – Group type – CropArea – CropCount – CropDate – PropertySize – xCoord – yCoord
Farms	– FarmerSize* – FarmerAge – Firstname – Lastname – FarmerId – PropertyId – Parish – Extension – district – Farm (?) – PropertySize – xCoord – yCoord
Prices	– Parish – cropType – price – priceMonth

URI Root: **http://data/org.jm/api/...**

URI	Description	Example
This Documentation: http://data.org.jm/documentation.html		
Queries		
/crops	Returns the hierarchy of values for CropGroups / CropTypes and production summary	
/crops/parishes	Returns the hierarchy of values for Parishes / CropTypes (i.e. available croptype data by Parish)	
/farms OR /farms/parishes	Returns a tabular (xml) summary of Farms in the database by Parish; includes counts and total PropertySize	
/farms/parishes/extensions /farms/parishes/extensions/districts	Returns a tabular (xml) summary of Farms in the database by Parish/Extension/District; includes counts and total PropertySize	
/prices OR /prices/parishes	Returns the average values of Prices for Parish / CropTypes (i.e. croptypes for which there is pricing information per Parish)	
Parameters/Arguments		
In addition to the basic URI schema above, data can be selected using Argument based Queries /?([col_ident] [delim] [$var] In cases where Arguments are presented with the URL, all data column values are returned for rows satisfying the specified Queries		
Date Parameters	Date arguments are specified by indicating startdate and/or enddate parameters. A range is indicated using both parameters eg. 2009 is &startdate=2009-01-01&enddate=2009-12-31 eg. After Aug2009 is &startdate=2009-08-01 eg. Jan09 – Aug10 is &startdate=2009-01-01&enddate=2010-08-30	
Paging	Queries are limited to returning a maximum of 1,000 records at a time. In order to manipulate a large result-set, developers can use the following Paging parameters: **per_page** – number of results per page, for pagination of the result-set. Default setting is 50 **page** – utility parameter for paging through a large result-set. Indicates the page number requested from the recordset. eg. /farms/?parish=stcatherine&per_page=100&page=2	
Aggregates		
In cases where developers need to aggregate data across large (or the entire) data-set, Aggregate parameters may be used. Eg. To find the largest tomato farmer in St. Catherine. The following Aggregate parameters will be Available: Count, Sum, Max, Top		
Count	eg. # of Farms in St. Catherine: /farms/?parish=stcatherine&**count**	
Sum=[col_ident]	Eg. Total Acreage of Banana production in Portland last year:	

URI	Description	Example
	/crops/?parish=portland&cropdate=2009&**Sum**=CropArea	
Max=[col_ident]	Eg. Largest yam production Farm in Trelawny: /crops/?parish:trelawny&**Max**=CropArea	
Top=[col_ident] i.e. Top20%	There are cases where it is more useful to find the Top 20%, rather than a single Maximum.. Eg. Largest Cassava producers islandwide, last year /crops/? &**Top**=CropArea&cropdate=2009 *Not sure how easy this is to implement*	
NB> Developers could accomplish these results using standard queries, paging parameters and local processing, however this will be more efficient		

Use Case Scenarios	
Use Case	**Query**
Crops planted in St Elizabeth	/crops/?parish=st.elizabeth
Carrots planted across the island	/crops/?croptype=carrot
Carrots planted over time period – Jan09 – Aug10	/crops/?croptype=carrot&startdate=2009-01-01&enddate=2010-08-30
Credit proxy by microfinance institution	
Farmer products over last year	/crops/?FarmerID=90410367&startdate=2009-01-01&enddate=2009-12-31
Number and size of properties	farms/?FarmerID=90410367&**count** &**Sum**=PropertySize
Price of crops planted	/crops/?FarmerID=90410367&startdate=2009-01-01 /prices/?croptype=Pumpkin
Number / Area of other farms planting same crops	/crops/?croptype=xxxxxxx&**count**&**Sum**=CropArea
Farmers	
Crops of other farms growing in an area	/crops/?parish=st.elizabeth&district=junction
Highest producing crop last year	/crops&startdate=2009-01-01&enddate=2009-12-31&**Max**=CropArea
Price of a particular crop	/prices/?croptype=Green Banana
Best place to sell a crop	/prices/?croptype=cassava**&Top**=PriceAvg
Supermarket/Retailers/Agro-producers	
Largest producers of a crop	
Best places to buy a crop	
Properties near a particular plant	
RADA / Government Agency / Min Of Agriculture	
Most efficient farmer	
Highest growing extension, district, parish	
Which farmer sizes are most efficient	

Use Case Scenarios	
Use Case	**Query**
Farmer sizes or properties that are under performing	