Lookup Tables

Languages

L_Id	tinyint(2)	Auto increment
Language	char(32)	
Active	tinyint(1)	
Dir	tinyint(1)	

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Language definition

L_Id	tinyint(2)
Item_Id	int(5)
desc	char(32)
content	longtext
val	char(25)
l_type	char(3)
Field_Name	char(48)
Options	longtext

Crops

L_Id	tinyint(2)	
Crop_Id	int(3)	Auto increment
Crop_Name	char(35)	
Online	tinyint(1)	
Categories	char(32)	

This group of lookup tables are created to handle translations to coded values, such as countries ISO codes to full countries names, institute code to institute full name...etc.

fao_institutes

Institute	char(8)
FULL_NAME	char(185)
TYPE	char(11)
PGR_ACTIVITY	char(1)
MAINTCOLL	char(1)
STREET_POB	char(50)
CITY_STATE	char(50)
ZIP_CODE	char(20)
PHONE	char(20)
FAX	char(20)
EMAIL	char(60)
URL	char(128)

regions

L_Id	tinyint(2)
Parent	char(3)
Code	char(3)
ReferenceName	char(32)

countries_names

Origin	char(3)
Code2	char(2)
Region	char(3)
Current	tinyint(1)
ReferenceName	tinyint(1)

views

L_Id	tinyint(2)
v_id	int(4) Auto increment
v_title	char(64)
v_description	char(64)
v_Fields	longtext
Joint	longtext

Crop structure

CropName_taxonomy

Taxon_Code	int(6)
Genus	char(64)
Species	char(80)
Taxon_Name	char(128)

CropName_acq_breeding

Alis_Id	bigint(12)
Breeder_Code	char(8)
Pedigree	text
Parent_Accessions	text

CropName_Accessions

Alis_Id	bigint(12) Auto inrcrement
Institute	char(8)
ACC_Numb_HI	char(8)
Taxon_Code	int(6)
Acquisition_Source	int(3)
Acquisition_Date	char(8)
Origin	char(3)
Longitude_D	double
Latitude_D	double
Altitude	float
Dubl_Inst	char(8)
Sample_Status	char(3)
Storage	char(12)
In_Svalbard	char(1)
In_Trust	char(1)
Availability	char(1)
MLS_Status	char(1)

CropName_acq_collect

Alis_Id	bigint(12)
Mission_Code	char(8)
Collect_Date	char(8)
Collectors_Numb	char(24)
Collecting_Institute	char(8)
Collect_Site	text(12)
Habitat	int(2)

CropName_acq_market

Alis_Id	bigint(12)
Desc	longtext

CropName_acq_exchange

Alis_Id	bigint(12)
Doner_Institute	char(8)
Acc_Numb_Doner	char(24)
Numb_Generations	int(3)

The seven relational tables above are replicated for each crop, CropName is replaced by the actual crop name in the crop lookuptable, example balrey_accessions or whaeat_accessions.
the four tables around the accession table are used according to the value of Acquisition_Source field, field collected material will have extended data in Acq_collect tabel, material received from other genbanks will have some extra information in acq_exchange table, same goes for accessioned breeding lines material & material obtained from

Add-onTables

This set of unlimited number of tables created to integertate complementary information related to an accession

CropName_environment

Alis_Id	bigint(12)
T_Min_Jan	float
T_Min_Feb	float
T_Min_Mar	float
T_Min_Apr	float
T_Min_May	float
T_Min_Jun	float
T_Min_Jul	float
T_Min_Aug	float
T_Min_Sep	float
T_Min_Oct	float
T_Min_Nov	float
T_Min_Dec	float
T_Max_Jan	float
T_Max_Feb	float
T_Max_Mar	float
T_Max_Apr	float
T_Max_May	float
T_Max_Jun	float
T_Max_Jul	float
T_Max_Aug	float
T_Max_Sep	float
T_Max_Oct	float
T_Max_Nov	float
T_Max_Dec	float
P_Jan	float
P_Feb	float
P_Mar	float
P_Apr	float
P_May	float
P_Jun	float
P_Jul	float
P_Aug	float
P_Sep	float
P_Oct	float
P_Nov	float
P_Dec	float
T_Min_Annual	float
T_Max_Annual	float
P_Max_Annual	float
Bio_1	float
Bio_2	float
Bio_3	float
Bio_4	float
Bio_5	float
Bio_6	float
Bio_7	float
Bio_8	float
Bio_9	float
Bio_10	float
Bio_11	float
Bio_12	float
Bio_13	float
Bio_14	float
Bio_15	float
Bio_16	float
Bio_17	float
Bio_18	float
Bio_19	float

The three tables hold the extendable C&E data structure, parameters table holds descriptor names and it varies according to the crop, methods table holds a description on how it was measured and definition of the data collected, each method has a unique number, used to create a table which has only three columns "accession number, meta ID, and the field of data as described in the method record, this structure is providing flexibility to measure the same descriptor with deferent methods, and divide the volume of data gathered in smaller chunks which makes the system work faster, and facilitate the ability to query this data with other passport and add-on data like environment.
The metadata table is holding extra details on how & where the experiment was conducted

C&E structure

categories

L_Id	tinyint(2)
Cat_Id	int(5)
Title	char(32)

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parameters

L_Id	tinyint(2)
Crop_Id	tinyint(2)
Cat_Id	int(5)
Par_Id	int(5)
Title	char(64)

1..∞

methods

L_Id	tinyint(2)
Par_Id	int(5)
Method_Id	int(6) Auto increment
Method	char(160)
Unit	char(16)
Options	text
Range	char(16)
FieldName	char(32)
FieldType	int(2)
FieldSize	int(3)

∞ 325 17 3 2 1

Alis_Id	bigint(12)
Meta_Id	bigint(12)
FieldName	FieldType

1..1

MetaData

Meta_Id	bigint(12) Auto Increment
Institute	char(8)
Title	char(64)
S_Date	char(10)
E_Date	char(10)
Location	char(128)
Long	double
Lat	double
Alt	float
Citation	char(255)
Description	longtext