

# Adding Observations

(...continued – “Part 2”)

Crops & Traits

“Descriptors”



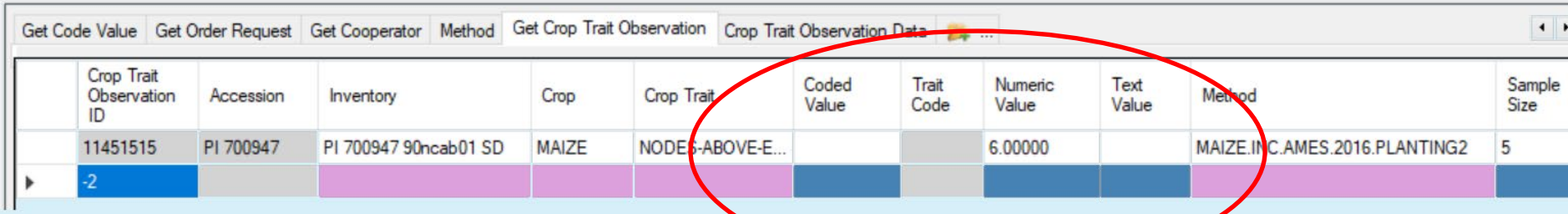
# Recording New Observations

You need to know...

Crop Trait Observation ID	Accession	Inventory	Crop	Crop Trait	Method	Coded Value	Trait Code	Numeric Value	Text Value
-1		1	2	3	4	5			

# 3 Types of values

- *type of data being recorded (text, numeric, or coded)*



The screenshot shows a data table with the following columns: Crop Trait Observation ID, Accession, Inventory, Crop, Crop Trait, Coded Value, Trait Code, Numeric Value, Text Value, Method, and Sample Size. A red circle highlights the 'Coded Value' column, which contains the value '-2' in the first row. The 'Numeric Value' column contains the value '6.00000' in the first row. The 'Text Value' column is empty in the first row. The 'Method' column contains the value 'MAIZE.INC.AMES.2016.PLANTING2' in the first row. The 'Sample Size' column contains the value '5' in the first row.

Crop Trait Observation ID	Accession	Inventory	Crop	Crop Trait	Coded Value	Trait Code	Numeric Value	Text Value	Method	Sample Size
11451515	PI 700947	PI 700947 90ncab01 SD	MAIZE	NODE6-ABOVE-E...	-2		6.00000		MAIZE.INC.AMES.2016.PLANTING2	5

# Text value: Example: Ploidy Equation

Search Results

Add To Query Clear Query

Limit: 1000 Page Size: 1000

Get Crop Trait Observation Get Crop Trait Observation Data Get Order Request Phyto Log Get Method Crop Trait ...

Crop Trait Observation ID	Accession	Coded	Trait	Numeric	Mean Value	Text Value	Method
972503	PI 551406					2n = 8x...	2007.CYTOLOGY
972504	PI 551507					2n = 2x...	2007.CYTOLOGY
972506	PI 551528					2n = 6x...	2007.CYTOLOGY
972507	PI 551549					2n = 6x...	2007.CYTOLOGY
972508	PI 551570					2n = 2x...	2007.CYTOLOGY

## Ploidy Equation

Number of accessions (45)

Equal to

$2n = 10x = 70$

$2n = 2x = 14$

$2n = 4x = 28$

$2n = 5x = 35$

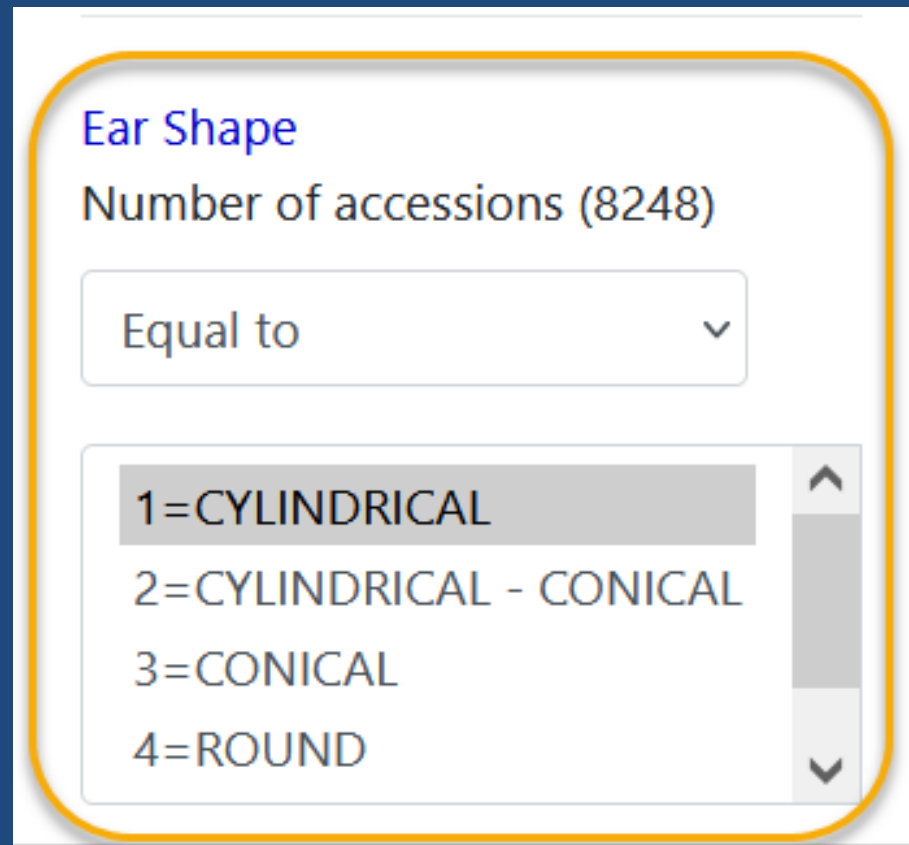
# Numeric values

- The Data Type must use “*Numeric descriptor*”

Crop	Trait Name	Trait Title	Trait Description	Is Peer Reviewed?	Category	Data Type	Is Coded?	Maximum Length
MAIZE	EAR-HEIGHT	Ear Height	HEIGHT OF THE TOP EAR ON THE CENTRAL STALK FROM GROUND LEVEL TO THE NODE WHERE THE EAR ATTACHES TO THE STALK.	Y	Morphological descriptors	Numeric descriptor	N	4

# Coded values

- Use a scale of codes – designed *specifically* for the trait



Ear Shape

Number of accessions (8248)

Equal to ▾

1=CYLINDRICAL  
2=CYLINDRICAL - CONICAL  
3=CONICAL  
4=ROUND

The image shows a web interface for a trait named 'Ear Shape'. It displays the number of accessions (8248) and a dropdown menu currently set to 'Equal to'. The dropdown menu is open, showing four coded values: 1=CYLINDRICAL, 2=CYLINDRICAL - CONICAL, 3=CONICAL, and 4=ROUND. The first option is highlighted.

# Coded values

Crop	Trait Name	Trait Title	Trait Description	Is Peer Reviewed?	Category	Data Type	Is Coded?	Maximum Length
MAIZE	EAR-SHAPE	Ear Shape	SHAPE OF THE UPPERMOST EAR	Y	Morphological descriptors	Alpha/numeric descriptor	Y	1



# Coded values

Crop	Trait Name	Trait Title	Trait Description	Is Peer Reviewed?	Category	Data Type	Is Coded?	Maximum Length
MAIZE	EAR-SHAPE	Ear Shape	SHAPE OF THE UPPERMOST EAR	Y	Morphological descriptors	Alpha/numeric descriptor	Y	1

Crop Trait Code ID	Crop	Trait Name	Crop Trait	Trait Description	Trait Code	Code Title	Code Description
3956	MAIZE	EAR-SHAPE	Ear Shape	SHAPE OF THE UPPERMOST EAR	1	CYLINDRICAL	CYLINDRICAL
3957	MAIZE	EAR-SHAPE	Ear Shape	SHAPE OF THE UPPERMOST EAR	2	CYLINDRICAL - CONICAL	CYLINDRICAL - CONICAL
3958	MAIZE	EAR-SHAPE	Ear Shape	SHAPE OF THE UPPERMOST EAR	3	CONICAL	CONICAL
3959	MAIZE	EAR-SHAPE	Ear Shape	SHAPE OF THE UPPERMOST EAR	4	ROUND	ROUND
3960	MAIZE	EAR-SHAPE	Ear Shape	SHAPE OF THE UPPERMOST EAR	5	FASCIATED	FASCIATED

# How do you determine ...

Whether an observation is...

text, numeric, or coded?

# look at the trait...

Inventory	InvMaint	Policy	Season	Accessions	Crop Trait	Get Code Value	Get Order Request	Get Cooperator	Method	Get Crop Trait Observ
	Crop Trait ID	Crop	Trait Name	Trait Title	Trait Description	Is Peer Reviewed				
▶	310090	MAIZE	BOTTOM-TASS...	Bottom Tassel Branch Height	Distance from ground level to the insertion point on the tassel stem of the bottom tassel branch of	N				
	89034	MAIZE	EAR-HEIGHT	Ear Height	HEIGHT OF THE TOP EAR ON THE CENTRAL STALK FROM GROUND LEVEL TO THE NODE	Y				
	89038	MAIZE	EAR-NUMBER	Ear Number	NUMBER OF EARS WITH KERNELS ON THE MAIN STEM	Y				
	89003	MAIZE	EUROPEAN-CO...	European Corn Borer Gen1	RESISTANCE TO THE FIRST GENERATION OF EUROPEAN CORN BORER	Y				
	89328	MAIZE	GDU-SILK-F_LA...	GDU SILKING F LAT40-49	Growing degree units (GDU or GDD) from planting to 50% silking in degree Fahrenheit. Data is taken	Y				
	89040	MAIZE	NODE-NUMBER	Node Number	Number of Nodes on the main stalk from ground level to top including the peduncle node	Y				
	89010	MAIZE	NODES-ABOVE-...	Node Number Above the Ear	Number of Nodes on the main stalk starting at the node above the ear node up to and including the	N				
	89056	MAIZE	NOTES	Notes and Remarks	Observations made by cooperators or curators while evaluating accessions in a season	N				
	310089	MAIZE	PEDUNCLE-HEI...	Peduncle Height	Distance from ground level to the node where the tassel emerges on the central stalk	N				
	89033	MAIZE	PLANT-HEIGHT	Plant Height	Height of the plant from ground level to the top of the tassel at full growth measured in centimeters	Y				
	310088	MAIZE	TASSEL-TYPE	Tassel Type	Classification of the amount of tassel branching from one branching to branched to dense tassel	N				
	89044	MAIZE	TILLER-NUMBER	Tiller Number	NUMBER OF TILLERS PER PLANT	Y				
	310091	MAIZE	TOP-TASSEL-B...	Top Tassel Branch Height	Distance from ground level to the insertion point on the tassel stem of the uppermost tassel	N				

Column Chooser

Other Options

...look at the trait

Crop	Trait Name	Trait Title	Is Peer Reviewed?	Category	Data Type	Is Coded?	Maximum Length	Numeric Format
MAIZE	PRIMARY-RACE	Primary Race	Y	Taxonomic descri...	Alpha/numeric descriptor	Y	7	
MAIZE	SECONDARY-RACE	Secondary Race	Y	Taxonomic descri...	Alpha/numeric descriptor	Y	7	
MAIZE	EUROPEAN-CORNBORER1	European Com Borer...	Y	Insect descriptors	Alpha/numeric descriptor	Y	1	
MAIZE	EUROPEAN-CORNBORER2	European Com Borer...	Y	Insect descriptors	Alpha/numeric descriptor	Y	1	
MAIZE	DAYS-TO-SILK	Days to Silk	Y	Phenological des...	Numeric descriptor	N	4	##0
MAIZE	DAYS-TO-POLLEN	Days to Pollen Shed	Y	Phenological des...	Numeric descriptor	N	4	##0
MAIZE	CORE	Core Subset	Y	General information	Alpha/numeric descriptor	Y	1	
MAIZE	ETHNIC-GROUP	Ethnic Group	Y	General information	Alpha/numeric descriptor	N	30	
MAIZE	NODES-ABOVE-EAR	Node Number Above...	N	Morphological de...	Numeric descriptor	N	5	#0.#
MAIZE	ECB2-SHANK	ECB2 Shank Damage	N	Insect descriptors	Numeric descriptor	N	6	#0.##

# Adding observations

- One
- Many

# Adding observations

- One
- Many

Get Order Request | Get Cooperator | Method | **Crop Trait Observation** | Crop Trait Observation Data | Get Taxonomy Crop Map | ...

Crop Trait Observation ID	Accession	Inventory	Crop	Crop Trait	Method	Coded Value	Trait Code	Numeric Value	Text Value
-1		1	2	3	4	5			

# Demo

- Creating your own template
- Adding one observation at a time
- Bulk adding many obs at one time
  
- The advantage of knowing a second language...

ENG

# Numeric fields (optional)

- Numeric Minimum / Numeric Maximum



# Numeric fields (optional)

- **Numeric Minimum / Numeric Maximum**  
(minimum and maximum *values*)

# Numeric Format\*

Format specifier	Name	Description	Examples
"0"	Zero placeholder	Replaces the zero with the corresponding digit if one is present; otherwise, zero appears	1234.5678 ("00000") -> 01235 0.45678 ("0.00", -> 0.46
"#"	Digit placeholder	Replaces the "#" symbol with the corresponding digit if one is present; otherwise, no digit appears  no digit appears if the digit is a non-significant 0.	1234.5678 ("#####") -> 1235 0.45678 ("#.##", -> .46  0003 ("#####") -> 3
"."	Decimal point	Determines the location of the decimal separator	0.45678 ("0.00") -> 0.46

\*Formats display in the Public Website (not the CT)

# Is Archived?

- Determines PW visibility

# Other Examples

# Images...SUGARBEET

Image/picture1

Number of accessions (421)

Equal to



collection site

field plants

flowering plant

green seed on stalk



# IMAGES ... SUGARBEET

Crop Trait	Crop Trait Lang	Crop Trait Code	Crop Trait Code Lang	Get Order Request	Get Cooperator	Method	Crop Trait Observation	Crop Trait Observation Data	Get Code
	ession	Inventory	Crop	Crop Trait	Text Value	Note			
▶	44495	W6 44495 2012o SD	SUGARBEET	Image/pic...	collection site	<a href="/npgs/images/w6/morocco/site_2_collecting.jpg"><IMG src="http://sun.ars-grin.gov/perl/npgs/thumb.pl?file=/pub/npgs/images/w6/morocco/s			
	44501	W6 44501 2012o SD	SUGARBEET	Image/pic...	collection site	<a href="/npgs/images/w6/morocco/mar10_008_plant.jpg"><IMG			
	44494	W6 44494 2012o SD	SUGARBEET	Image/pic...	collection site	<a href="/npgs/images/w6/morocco/site_1_collecting.jpg"><IMG			
	44497	W6 44497 2014i SD	SUGARBEET	Image/pic...	collection site	<a href="/npgs/images/w6/morocco/site_3_collecting.jpg"><IMG			
	44510	W6 44510 2012o SD	SUGARBEET	Image/pic...	collection site	<a href="/npgs/images/w6/morocco/site_11b.jpg"><IMG			
	44520	W6 44520 2012o SD	SUGARBEET	Image/pic...	collection site	<a href="/npgs/images/w6/morocco/mar10_027.jpg"><IMG			
	45842	W6 45842 2012o SD	SUGARBEET	Image/pic...	collection site	<a href="/npgs/images/w6/morocco/morocco2012/06_06_2012_07_site_22.jpg"><IM			
	45842	W6 45842 2012o SD	SUGARBEET	Image/pic...	plant	<a href="/npgs/images/w6/morocco/morocco2012/06_06_2012_05_mar12_022.jpg">			
	44496	W6 44496 2012o SD	SUGARBEET	Image/pic...	collection site	<a href="/npgs/images/w6/morocco/site_3_collecting.jpg"><IMG			

# IMAGES ... SUGARBEET

Crop Trait	Crop Trait Lang	Crop Trait Code	Crop Trait Code Lang	Get Order Request	Get Cooperator	Method	Crop Trait Observation	Crop Trait Observation Data	Get Code Value	
Crop Trait ID	Crop	Trait Name	Trait Title	Trait Description	Is Peer Reviewed	Category	Data Type	Is Coded?	Maximum Length	Number of Values
49122	SUGARB...	IMAGE-2	Image/picture2	A picture or image	Y	Uncategorized descript...	Alpha/numeric descriptor	N	20	

# Maize

## Notes and Remarks

Number of accessions (2946)

Equal to

COLD-SEASON-TEMP-TOLERANT\_YES  
COLORED-PLANTS\_YES  
COOL-TEMPATURE-FAST-MATURITY  
CORN-LEAF-APHID-RESISTANT\_NO



# Maize

Crop Trait	Crop Trait Lang	Crop Trait Code	Crop Trait Code Lang	Get Order Request	Get Cooperator	Method	Crop Trait Observation	Crop Trait Observation Data	Get Code Value	
	Trait Name	Trait Title	Trait Description	Is Peer Reviewed	Category	Data Type	Is Coded?	Maximum Length		
	SILK-SCAR	Colored Silk Scar	Colored Silk Scar	Y	Morphological descrip...	Alpha/numeric descriptor	Y	1		
▶	NOTES	Notes and Remarks	Observations made by cooperators or curators while evaluating or regenerating germplasm. Usually these observations are not published and need verification or there are too few observations of this type to promote a separate trait.	N	General information	Alpha/numeric descriptor	N	80		
	POPPING EXPAN	Popping Expansion	Popping Expansion	Y	Quality descriptor	Numeric descriptor	N	6		

Best Way to Learn More about  
Coded traits...

Basic Query

Search Now!

Find:  Default  accession

Matching  Any Word  All Words  List of Items

Search Criteria

@crop\_trait.is\_coded = 'Y'

Clear Text

Search Results

Add To Query

Clear Query

Limit: 10000 Page Size: 1000

Get Taxonomy Crop Map Get Inventory Get Site **Get Crop Trait** Get Crop Trait Observation Get Crop Trait Observation Data Get Method Crop Trait Get Crop Crop Trait Code Get Cit

Crop Trait ID	Crop	Trait Name	Trait Title	Trait Description	Is Peer Reviewed?	Category	Data Type	Is Coded?	Maximum Length
1002	BARLEY	SPIKEROW	Spike Row Number	Spike row number characteristic.	Y	Morphological descr...	Alpha/numeric descrip...	Y	3
1003	BARLEY	SPIKEDENS	Spike Density	Visual measure of spike density.	Y	Morphological descr...	Alpha/numeric descrip...	Y	1
1004	BARLEY	AWNTYPE	Awn Type	Presence or absence of awns or heads on the spike.	Y	Morphological descr...	Alpha/numeric descrip...	Y	3
1005	BARLEY	AWNROUGH	Awn Roughness	Surface roughness characteristic of the awn.	Y	Morphological descr...	Alpha/numeric descrip...	Y	3
1006	BARLEY	AWNDECIDU	Awn Deciduousn...	Proportion of awns falling off prior to harvest. Values at maturity.	Y	Morphological descr...	Alpha/numeric descrip...	Y	3

Showing rows: 4470 of 4470

Connected to: https://training.ars-grin.gov/GRINGlobal/GUI.asmx

# Review in DB / then on Website

Search

Awn Type

Number of accessions (21855)

Equal to

1=AWNED

2=AWNED ON PRIMARY ROWS, AWNLETED ON LATERAL ROWS

3=AWNED ON PRIMARY ROWS, AWNLESS ON LATERAL ROWS

4=AWNLETED

Spike Row Number

Number of accessions (24080)

Equal to

2=TWO ROWED

3=TWO ROWED, DEFICIENS

5=IRREGULARE; 2 AND 6 CHARACTERS ON THE SAME SPIKE.

6=SIX ROWED

MIX=ROW MIXED FOR SPIKE ROW NUMBER

... to be continued ...

- SUGARBEET