# Default values

#### Pedigree named fields:

- 1. PedID: Pedigree ID Animal primary unique identifier
- 2. ISUBPID:
- 3. PreRegID: temporary pesudo "intl\_ID" by a temp serial together with 'ISU' after essential parts of an Intl\_ID; To be replaced by Intl\_ID.
- 4. HealthID: 5. DummyID:
- 6. Data ownership: Data "ownership" is represented by BOTH `labID' and `UserID' because (1) responsibility will be traceable to individuals; (2) personel changes - eventual owner is `lab'. For this reason when a user works for both labs, s/he needs to have 2 separate accounts.
- 7. DamPedID/SirPedID: Added in 2024, replacing (old)Dam\_ID/Sir\_ID which use Intnl\_IDs. The current DamPedID/SirPedID are looked up and filled by PedID composed following above rules matching their Intl\_IDs.
- 8. SpecificDates:
- Weaning date
- Yearling date
- Slaughter date
- Castration date
- 9. Flag Controlled vocabulary

# Basic structural types:

- Styles of table box borders:
- 1. Thick lines: key info tables.
- 2. Solid lines: existing tables 3. Dotted lines: concepturally proposed (not yet implemented)
- 4. Gray lines: existing tables 5. Black lines: existing and potentially to
- improve 6. light cyan lines: newly created tables since year 2000.

Controlled vocabulary

vocID

vocabulary

Record\_Date

meaning

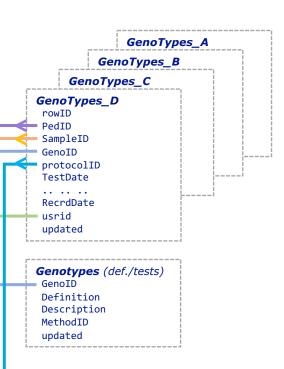
## Fit data flows:

#### **Pedigree** pID (primary) AnimalRegIDs Location\_track **Breed\_associations** PedID • rID Asso\_ID FarmID PedID ' PedID Name updated PreRegID AssoID Address Intl\_ID RegNum Phone ISUBPID RegDate Emails HealthID usrid Website Farms DummyID updated Notes FarmID Sex (M/F)Created Name BirthDate Address WeaningDate Phone YearlingDate Email **CastrOvrmDate** Samples Created LeaveDate SampID **SlaughterDate** PedID **DamPedID** New; use PedID; SampleName SirePedID New; use PedID Tissue\_Type Dam\_ID Old; Use Intl\_ID; Descrition Sire\_ID Old; Use Intl\_ID SamplProtocol BreedID SampleDate TWorET ProcessProtocol AIorNA ProcessDate isSteer (yes/NULL) ProcessedProduct Season (S|F)Storage\_PlateLoc Presentation usrid Remarks updated **Breeds** Genotyped Breed\_ID Lab Breed\_name cuid LBO\_ID created Notes updated Created Labs labID Name Piname Piemail Piphone PhenoMeasure\_A Address PhenoMeasure\_B Notes PhenoMeasure\_C Created **PhenoMeasures** rowID AnimalPedID SampleID (Lab storage) Users Repeats (eg. 3 milkings a day, etc) uid PhenoID (Phenotype definition) UserName MeasuredValue fname MeasurmtUnit lname MeasurDate labID SDID • roles Protocol email israt. Password usrid access\_ipv4 Record\_Date randomstr TotalLogins RecentLogin created **SpecificDate** SizeMeasurements Ped\_ID SpecificDate AnimalID (intl\_ID) created Date User\_login\_track MeasurementID tkID SDID UserName Value Units access\_ipv4 UnitsID UnitsID access dir created UnitsType access\_time created Measurement\_names MeasurementID Past routine data MeasurementType Multiple (Y|N) (??) collections from farms created scope (pheno/geno/farm/etc) Phenotypes (traits) phenoID 3181. Name Definition Descriptin vt\_ID (mappings)

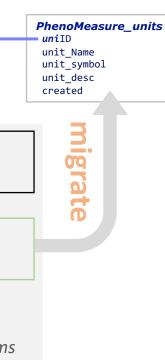
lpt\_ID (mappings) cmo\_ID (mappings) UBR\_ID (mappings)

updated

A Conceptual ER for ISU Cattle DataBase



Protocols ProtocolID
Name category (geno/pheno/sampl) Protocol Description usrid
created updated



### **Development history**

2023.01.21	introduced " <b>Birth_ID</b> " as the unique animal identifier.
2023.01.25	Created "Breeds" table
2023.01.26	Created <b>"Labs</b> " and <b>"Users</b> " tables. Created table <b>"Farms</b> " to record animal
2024.01.19:	locations (go with birth, sampling data
2024 01 10	etc).
2024.01.19	Created a "AnimalRegIDs" table, to
	accommodate multiple breed association register IDs.
2024.01.15	Created "Breed_associations" table.
2024.01.26	Added ` <b>Phenotypes</b> ` table to hold phenotype definitions
2024.01.26	Added <b>Protocols</b> table for protocols
	used in phenotype/genotype and other procedures in the lab.
2024.02.05	Created table ` <b>Location_track</b> ` to record animal locations and movements
	(eg. not just birth time location);
2024.02.21	Added 'AIorNA' field to Pedigree table to
2024.02.21	indicate it's from artificial inseminations or
2024.03.19	natural pregnancy. added ` <b>Phenomeasures</b> `table along
	with <b>`Samples</b> ` table. These work with
	<i>`Phenotypes'</i> to record phnotype
	measurements data. (experimenting in
	DairyDB)
2024.04.26	Changed primary animal ID from Birth_ID
	to <b>PedID</b> (for 'pedigree ID') to avoide
2024 05 06	confusings.
2024.05.06	added <b>DamPedID</b> and <b>SirePedID</b> (to
	replace old <i>Dam_ID/Sire_ID</i> which uses Int'l IDs)
2024.05.09	Subsequence changes from AnimalBirID
	to <b>PedID</b> ( <i>AnimalPedID</i> ) for all tables.
2024.06.29	to <b>PedID</b> ( <i>AnimalPedID</i> ) for all tables. Determined the table structure of old trait
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