

ARM Germplasm Manager Software

by Gylling Data Management, Inc.

The Solution for Your Research Data Needs

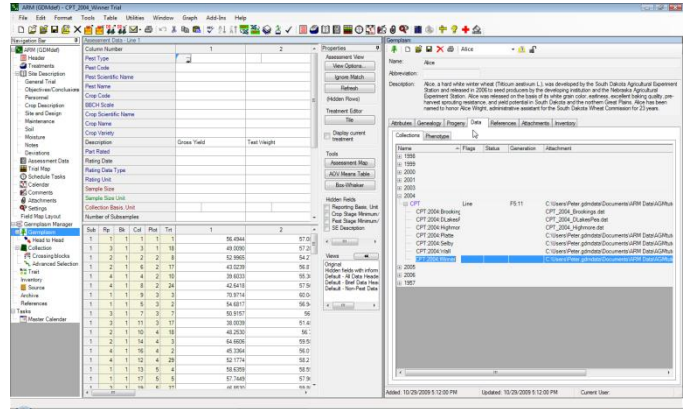
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What is ARM Germplasm Manager?

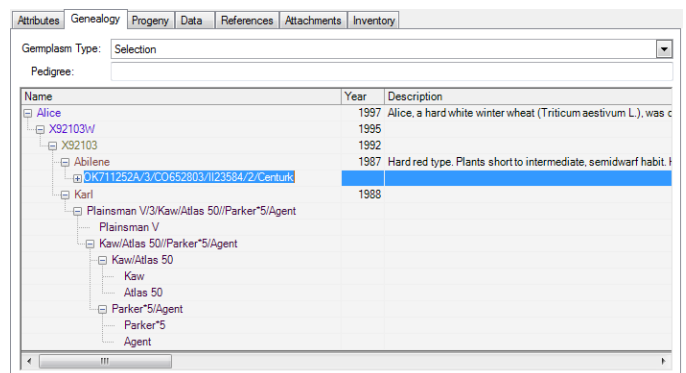
AGM is a new database system tightly integrated with ARM 8 to provide for germplasm improvement projects and crop performance trials. AGM is used to manage the germplasm – varieties, selections, hybrids, crosses, or composite/synthetic cultivars entered in ARM protocols.

AGM is an add-in for ARM research management software and ARM ST. ARM software features and ordering information are also described on the GDM website at www.gdmdata.com. AGM is scheduled to be released as an add-on to ARM and ARM ST. GDM will be offering a pre-release sale price.

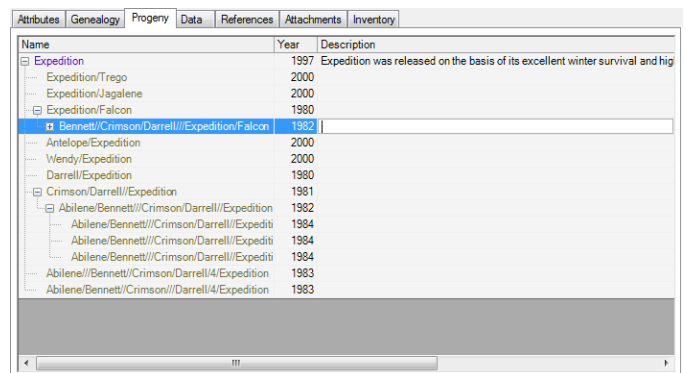


History of a Variety

AGM tracks parent-progeny and selection information for related populations and crosses. This view displays the lineage or pedigree of a population, including parent lines and precursor segregating (F_n) populations.



Progeny derived from a population, including crosses and selections, are easily browsed for any cross or population. Not only can you track the pedigree of a variety or hybrid under development, you can track use and importance of previously released germplasm.



Track seed lots and follow progeny with different names through multiple harvest seasons ...

Name	Germplasm	Source	Action	Amount	Date	Description
INV100	EGMS x Elite	SRCIncrease Nursery		12 g		
INV101	EGMS x Elite	SRCIncrease Nursery		67 g		
INV102	EGMS x Elite2	SRCBackcross Nursery		13 g		
INV103	EGMS x Elite2	SRCIncrease Nursery		58 g		
INV104	EGMS x Elite3	SRCBackcross Nursery		11 g		
INV105	EGMS x Elite4	SRCBackcross Nursery		12 g		
INV106	EGMS x Elite4	SRCIncrease Nursery		70 g		
INV107	EGMS x Elite5	SRCBackcross Nursery		13 g		
INV108	EGMS x Elite6	SRCBackcross Nursery		10 g		
INV109	EGMS x Elite7	SRCBackcross Nursery		11 g		

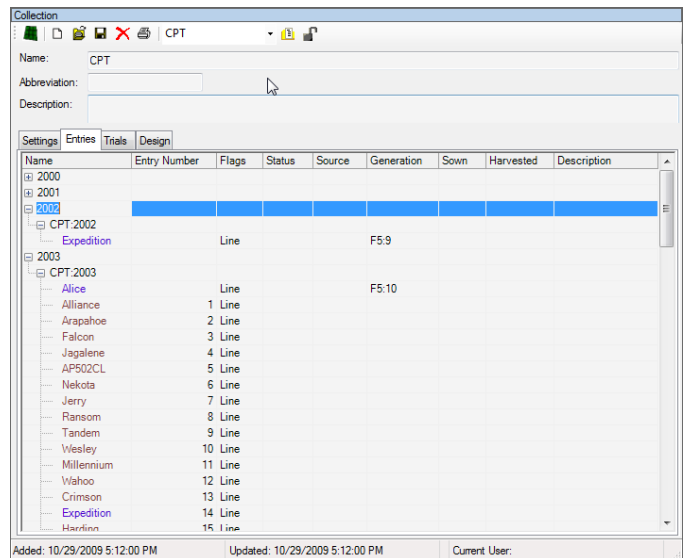
Or track propagation of seed for a single germplasm, including crossing methods and generation from original cross:

Name	Amount	Germplasm	Source	Generation	Method	Description
INV000	45 g	IGM 19 x 8902S	SRCCrossing Block	Inbred	Cross	
INV001	78 g	IGM 19 x 8902S	SRCIncrease Nursery	F1	Self	
INV002	120 g	IGM 19 x 8902S	SRCIncrease Nursery	F2	Backcross	F2 plants with pale green leaves
INV003	15 plant	8902S x (IGM 19)	SRCBackcross Nursen	BC1F1	Self	15 lines showed fertility transformati
INV004	661 plant	8902S x (IGM 19)	SRCBackcross Nursen	BC1F2	Self	individual sterile plants selected for
INV005	36 plant	8902S x (IGM 19)	SRCBackcross Nursen	BC1F3	Self	lines with uniform characters and bel
INV006	22 plant	8902S x (IGM 19)	SRCBackcross Nursen	BC1F4	Self	22 lines sown in intervals. After 1.57
INV101	1 plant	8902S x (IGM 19)	SRCBackcross Nursen	BC1F5	Self	

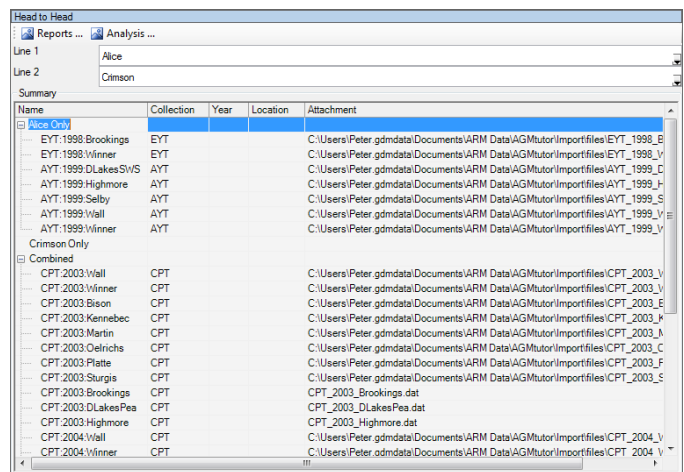
Preparing to release a variety or parental line for PVP (variety protection) status? AGM records the entire developmental history from initial cross (or crosses) through field testing, and these records are at your fingertips. ARM and ARM ST provide the summary data needed for many types of crop registrations.

Name	Flags	Status	Generation	Attachment
1998				
EYT	Line	F5		C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
EYT:1998:Brookings				C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
EYT:1998:Vinner				C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
1999				
AYT	Line	F5.6		C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
2000				
CPT	Line	F5.7		C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
2001				
CPT	Line	F5.8		C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
2003				
CPT	Line	F5.10		C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
NRPN	Line			C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
2004				
CPT	Line	F5.11		C:\Users\Peter.gdm\data\Documents\ARM Data\AGMutor\lmpo
2005				

Testing history can be followed by variety and by experiment.



Trials involving two different lines can be quickly organized for head-to-head comparisons.



ARM Integration

While AGM provides simple editors for most data, much of the day-to-day data entry is managed through ARM. ARM is being extended to include crossing block experiments for genetic analysis, building pedigrees and entering F1 seed into inventory. Augmented designs are being added for early generation testing. AGM will be used to post-process ARM files to import crosses made, line or family selections, and seed harvested to inventory. Where appropriate, AGM can create protocols for further generational testing and performance trials of selected lines.

AGM also includes tools for managing selections from germplasm under development, as well as managing entry lists as varieties are tested over multiple years and advanced to larger scale performance trials

