

- · What is it?
- How does it work?
- Why participate?
- Who does it benefit?

- What is it?
- Collaboration between breeders, mills, farmers, and end-users
- Test lines for potential release
- Collaborator meeting
 - Discusses new developments and activities in wheat world
 - Round-table discussion
 - Breeders showcase new lines
 - Mills evaluate those lines' potential

- How does it work?
- Call for entries into UC Regional Cereal Evaluation Tests
- Ask breeders to submit top lines for potential release
 - Grow entries in 80-foot strips
 - Yields ~ 100 pounds per entry
 - Sent to collaborating mills for quality analysis

- How does it work?
- Check Varieties
 - Known high performers for head-to-head comparisons
 - Common Wheat
 - Cal Rojo (Red Wheat)
 - Blanca Grande 515 (White Wheat)
 - Durum Wheat
 - Kronos

- How does it work?
- Check Varieties
 - Replicated three times and mixed together
 - Check reproducibility of the results from mills

	ADM	CARGILL	CFP	CONAGRA	cwc	ADM	CARGILL	CFP	CONAGRA	cwc
ENTRY NAME	PRO	PRO	PRO	PRO	PRO	Vol	Vol	Vol	Vol	Vol
	%	%	%	%	%					
									1	
CAL ROJO	13.25	12.98	13.20	13.20	12.74	2850	873	3104	2625	965
BLANCA GRANDE 515	13.96	14.13	14.10	14.10	13.64	2700	885	2986	2525	985
WB DA905-10	12.59	12.70	12.60	12.60	12.27	2775	885	2986	2575	970
CLEAR WHITE 515	14.73	14.78	14.60	14.60	14.32	2775	898	3074	2550	950
PATWIN 515	12.54	12.68	12.50	12.40	12.36	2700	865	2897	2500	910
UC 1715	13.72	13.81	13.70	13.70	13.72	2700	853	2633	2575	925
АТОМО	12.64	12.91	12.80	12.70	12.54	2700	788	3104	2500	900
08SB0073	13.21	13.39	13.30	13.20	12.82	2750	828	2721	2575	940
CAL ROJO	13.35	13.16	13.20	13.40	12.98	3000	893	3045	2725	1000
BLANCA GRANDE 515	14.08	14.01	14.00	13.90	13.80	2775	918	2868	2550	1030
WB-JOAQUIN ORO	14.82	14.86	14.90	14.80	14.68	2775	955	2927	2500	1000
WB-PERLA	14.74	14.70	14.80	14.70	14.51	2700	905	2986	2550	1000
WB SJ907-229	14.90	14.90	14.90	14.80	14.62	2900	958	3015	2550	1025
APB W9-3AL	13.35	13.51	13.10	13.10	13.21	2600	833	2927	2400	925
APB NM-1	12.41	12.41	12.50	12.40	12.05	2775	863	2691	2600	890
APB MC-1	12.91	12.77	13.00	12.80	12.67	3000	878	3104	2700	925
CAL ROJO	13.20	13.07	13.00	13.10	12.72	2900	945	3074	2650	930
BLANCA GRANDE 515	14.06	14.10	14.10	13.90	13.87	2700	890	2868	2500	960
CAL ROJO MIX AVERAGE	13.3	13.1	13.1	13.2	12.8	2916.7	903.7	3074.1	2666.7	965.0
BLANCA GRANDE 515 MIX AVERAGE	14.0	14.1	14.1	14.0	13.8	2725.0	897.7	2907.3	2525.0	991.7
LAB VARIATION CAL ROJO MIX	0.58%	0.69%	0.88%	1.15%	1.13%	2.62%	4.11%	0.96%	1.95%	3.63%
LAB VARIATION BLANCA GRANDE 515 MIX	0.46%	0.44%	0.41%	0.83%	0.86%	 1.59%	1.98%	2.34%	0.99%	3.58%
	1	1	1	1	1	1	1	1	1	1

- How does it work?
- Check Varieties
 - Replicated three times and mixed together
 - Check reproducibility of the results from mills
- Samples sent without names

2012 Co	ollaborative D	Ourum Entry List
Sample	UC Entry #	Name
1	951	KRONOS
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

201	12 Collaborat	ive Common Wheat Entry	List
Sample	UC Entry #	Name	Type
1	1478	CAL ROJO	HRS
2	1657	BLANCA GRANDE 515	HWS
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

- How does it work?
- Check Varieties
 - Replicated three times and mixed together
 - Check reproducibility of the results from mills
- Samples sent without names
- Processed for quality analysis
- Ranked by mills to show favorable traits

- Why participate?
- Regional testing submits samples for quality to CWC
 - Multiple mills
 - Collaborator meeting
 - Discussion with mills about what they like and don't

- · Who benefits?
- Everyone!
 - Breeders Feedback from mills
 - Mills Chance to tell breeders what they're looking for
 - Farmers Learn which new varieties are favorable to mills
 - End-users Higher quality products

Collaborators

Breeding Companies

Arizona Plant Breeders

Limagrain

Resource Seeds, Inc. (Syngenta)

University of Californa

WestBred (Monsanto)

Collaborators

Milling Companies

ADM Milling Co.

California Wheat Commission

Cereal Food Processors, Inc.

Conagra Foods

Horizon Milling (Cargill)

Miller Milling

Changes to 2012 Collaborative Wheat Program

- Eliminate checks sent to CWC to test for variability in the field – unnecessary
- Change white wheat check variety from Blanca Grande to Blanca Grande 515 – more commonly grown
- Grow common wheat at Davis and SJ Valley
 - SJ Valley show varieties under standard growing conditions
 - Davis express full potential of varieties
 - Excluded from testing missed irrigation and smut problem led to poor quality

		2012 Collab	orative Durum Entry List	
Sample	UC Entry #	Name	Parentage	Source
1	951	KRONOS	APB MSFRS POP SEL	APB
2	1440	HELIOS	MSFRS pop. Matt α male	APB
3	1640	APB D1-2	D94-1 x MSFRS Population Az	APB
4	1690	UC 1690	WWW D6523/UC1308	UC
5	1717	UC 1717	MOHAWK/UC1375	UC
6	951	KRONOS	APB MSFRS POP SEL	APB
7	1719	UC 1719	UC1375/UC1308	UC
8	1720	IMHOTEP		LIMAGRAIN
9	1722	06D2410		LIMAGRAIN
10	1735	APB CP-1		APB
11	1736	APB IM-1		APB
12	951	KRONOS	APB MSFRS POP SEL	APB
SOUD	TE. ADD - A	rizona Dlant Bra	adars:	

SOURCE: APB = Arizona Plant Breeders;

LIMAGRAIN = Limagrain Seeds;

UC = University of California, Davis

		2012 Collab	orative Durum Entry List	
Sample	UC Entry #	Name	Parentage	Source
1	951	KRONOS	APB MSFRS POP SEL	APB
2	1440	HELIOS	MSFRS pop. Matt α male	APB
3	1640	APB D1-2	D94-1 x MSFRS Population Az	APB
4	1690	UC 1690	WWW D6523/UC1308	UC
5	1717	UC 1717	MOHAWK/UC1375	UC
6	951	KRONOS	APB MSFRS POP SEL	APB
7	1719	UC 1719	UC1375/UC1308	UC
8	1720	IMHOTEP		LIMAGRAIN
9	1722	06D2410		LIMAGRAIN
10	1735	APB CP-1		APB
11	1736	APB IM-1		APB
12	951	KRONOS	APB MSFRS POP SEL	APB
SOUD	TE. ADR - A	rizona Plant Bred	eders:	

SOURCE: APB = Arizona Plant Breeders;

LIMAGRAIN = Limagrain Seeds;

UC = University of California, Davis

Performance of 2012 Collaborative Entries in Regional Trials														
Sample #	UC Entry #	Name	Туре	Source		Y	rield (l	b/acre)			Prote	in (%)		Stripe Rust
Sample #	OC Elliry #	Name	Type	Source	L	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	T	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB	l	6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB	l	5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC	l	6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	l	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC	l	5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN	l	6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN		5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0
11	1736	APB IM-1	DUR	APB	Γ	6480	1	7550	2	11.18	6	13.55	8	1.0

Performance of 2012 Collaborative Entries in Regional Trials														
Sample #	UC Entry #	Name	Туре	Source	Ι	Y	ield (l	b/acre)			Prote	in (%)		Stripe Rust
Sample #	OC Entry #	Name	Туре	Source	L	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	t	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB	l	6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB		5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC	I	6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	Ι	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC	I	5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN	l	6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN	l	5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0
11	1736	APB IM-1	DUR	APB		6480	1	7550	2	11.18	6	13.55	8	1.0

	Performance of 2012 Collaborative Entries in Regional Trials														
	Sample # UC Entry # Name Type Source Yield (lb/acre) Protein (%) Stri														
Sample #	UC Entry #	Name	Type	Source	ļ		_	Imp Valley	Rank			Imp Valley	Rank	Overall	
1, 6, 12	951	KRONOS	DUR	APB	t	-	-	-	-	-	-	13.79	7	-	
2	1440	HELIOS	DUR	APB	ı	6100	5	7490	4	10.95	8	14.04	5	1.1	
3	1640	APB D1-2	DUR	APB	Γ	5330	9	7320	6	12.40	1	14.36	2	1.0	
4	1690	UC 1690	DUR	UC		6150	3	7600	1	11.48	4	14.14	3	1.0	
5	1717	UC 1717	DUR	UC		6170	2	7550	2	12.08	2	14.01	6	1.0	
7	1719	UC 1719	DUR	UC		5900	6	7080	7	11.42	5	14.10	4	1.0	
8	1720	IMHOTEP	DUR	LIMAGRAIN		6150	3	6870	8	10.89	9	12.93	10	1.9	
9	1722	06D2410	DUR	LIMAGRAIN		5640	7	6250	9	11.17	7	16.19	1	1.0	
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0	
11	1736	APB IM-1	DUR	APB	Ι	6480	1	7550	2	11.18	6	13.55	8	1.0	

Performance of 2012 Collaborative Entries in Regional Trials														
Sample #	UC Entry #	Name	Туре	Source	Γ	Y	rield (l	b/acre)			Prote	in (%)		Stripe Rust
Sample #	OC Entry #	Name	Type	Source	L	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	T	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB		6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB	l	5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC	l	6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	l	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC	L	5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN	l	6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN		5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0
11	1736	APB IM-1	DUR	APB	Γ	6480	1	7550	2	11.18	6	13.55	8	1.0

Performance of 2012 Collaborative Entries in Regional Trials														
Sample #	UC Entry #	Name	Туре	Source	Γ	Y	ield (l	b/acre)			Prote	in (%)		Stripe Rust
Sample #	OC Entry #	Name	Type	Source	L	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	T	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB	l	6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB	l	5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC	ı	6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	l	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC		5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN		6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN		5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0
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Sample #	OC Entry #	Name	Type	Source	ļ	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall	
1, 6, 12	951	KRONOS	DUR	APB	T	-	-	-	-	-	-	13.79	7	-	
2	1440	HELIOS	DUR	APB		6100	5	7490	4	10.95	8	14.04	5	1.1	
3	1640	APB D1-2	DUR	APB	Γ	5330	9	7320	6	12.40	1	14.36	2	1.0	
4	1690	UC 1690	DUR	UC		6150	3	7600	1	11.48	4	14.14	3	1.0	
5	1717	UC 1717	DUR	UC		6170	2	7550	2	12.08	2	14.01	6	1.0	
7	1719	UC 1719	DUR	UC		5900	6	7080	7	11.42	5	14.10	4	1.0	
8	1720	IMHOTEP	DUR	LIMAGRAIN		6150	3	6870	8	10.89	9	12.93	10	1.9	
9	1722	06D2410	DUR	LIMAGRAIN		5640	7	6250	9	11.17	7	16.19	1	1.0	
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0	
11	1736	APB IM-1	DUR	APB		6480	1	7550	2	11.18	6	13.55	8	1.0	

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Sample #	UC Entry #	Name	Туре	Source	Γ	Y	ield (l	b/acre)			Prote	in (%)		Stripe Rust
Sample #	OC Entry #	Name	Type	Source	L	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	T	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB	l	6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB	L	5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC	l	6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	l	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC	ı	5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN	l	6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN	l	5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0
11	1736	APB IM-1	DUR	APB	Γ	6480	1	7550	2	11.18	6	13.55	8	1.0

		P	erform	ance of 2012 (Co	ollaborati	ve E	ntries in	Regio	onal Trial	s			
Sample #	UC Entry #	Name	Туре	Source	Γ	Y	ield (l	b/acre)			Prote	in (%)		Stripe Rust
Sample #	OC Billy #	Name	Type	Source	L	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	T	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB		6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB	l	5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC	l	6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	l	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC	l	5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN	ı	6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN	Ī	5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0
11	1736	APB IM-1	DUR	APB	Ι	6480	1	7550	2	11.18	6	13.55	8	1.0

		P	erform	ance of 2012 (Co	ollaborati	ve E	ntries in	Regio	nal Trials	S			
Sample #	UC Entry #	Name	Туре	Source	Γ		_	b/acre)				in (%)		Stripe Rust
	,		-JF-		ļ	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	t	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB	Ī	6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB	Γ	5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC		6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	Γ	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC	Ι	5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN	Ι	6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN		5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB		5340	8	7390	5	11.67	3	13.49	9	1.0
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		P	erform	ance of 2012 (Co	ollaborati	ve E	ntries in	Regio	nal Trial	s			
Sample #	UC Entry #	Name	Туре	Source	Γ	Y	ield (l	b/acre)			Prote	in (%)		Stripe Rust
Sample #	OC Billy #	Name	Type	Source	L	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	T	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB	l	6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB	l	5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC	l	6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	l	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC	l	5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN	l	6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN	l	5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB	l	5340	8	7390	5	11.67	3	13.49	9	1.0
11	1736	APB IM-1	DUR	APB	Ī	6480	1	7550	2	11.18	6	13.55	8	1.0

		P	erform	ance of 2012 (Co	ollaborati	ve E	ntries in	Regio	nal Trials	s			
Sample #	UC Entry #	Name	Туре	Source	L		_	b/acre)				in (%)		Stripe Rust
•			71		╀	Cent Valley	Rank	Imp Valley	Rank	Cent Valley	Rank	Imp Valley	Rank	Overall
1, 6, 12	951	KRONOS	DUR	APB	T	-	-	-	-	-	-	13.79	7	-
2	1440	HELIOS	DUR	APB	Ι	6100	5	7490	4	10.95	8	14.04	5	1.1
3	1640	APB D1-2	DUR	APB	l	5330	9	7320	6	12.40	1	14.36	2	1.0
4	1690	UC 1690	DUR	UC		6150	3	7600	1	11.48	4	14.14	3	1.0
5	1717	UC 1717	DUR	UC	l	6170	2	7550	2	12.08	2	14.01	6	1.0
7	1719	UC 1719	DUR	UC	l	5900	6	7080	7	11.42	5	14.10	4	1.0
8	1720	IMHOTEP	DUR	LIMAGRAIN	l	6150	3	6870	8	10.89	9	12.93	10	1.9
9	1722	06D2410	DUR	LIMAGRAIN		5640	7	6250	9	11.17	7	16.19	1	1.0
10	1735	APB CP-1	DUR	APB	Ι	5340	8	7390	5	11.67	3	13.49	9	1.0
11	1736	APB IM-1	DUR	APB	l	6480	1	7550	2	11.18	6	13.55	8	1.0

r			2012.6	Callabora	tive Common Wheat Enter List	
⊩			2012 (Johadora	tive Common Wheat Entry List	
H		TIO D / //				
E	sample	UC Entry #	Name	Type	Parentage	Source
L						
	1	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
	2	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)
	3	1624	WB DA905-10	HRS	993-191/998-5//SUMMIT/DASH 12	WB (MONSANTO)
	4	1679	CLEAR WHITE 515	HWS	Clear White 515 HP Yr5, Yr15, 2NS, Gpc	UC
	5	1680	PATWIN 515	HWS	PATWIN Yr5, Yr15	UC
ı	6	1715	UC 1715	HRS	EXPRESS*6/Lr37/RED RIVER 68//SERRA	UC
i	7	1723	ATOMO	HWS		LIMAGRAIN
	8	1724	08SB0073	HRS		LIMAGRAIN
4	9	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
	10	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)
	11	1728	WB-JOAQUIN ORO	HRS		WB (MONSANTO)
	12	1729	WB-PERLA	HWS		WB (MONSANTO)
	13	1730	WB SJ907-229	HRS		WB (MONSANTO)
	14	1734	APB W9-3AL	HWS		APB
ij	15	1737	APB NM-1	HRS		APB
1	16	1738	APB MC-1	HRS		APB
	17	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
	18	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)

TYPE: HRS = Hard Red Spring; HWS = Hard White Spring

SOURCE: APB = Arizona Plant Breeders; LIMAGRAIN = Limagrain Seeds; RSI (SYNGENTA) = Resource Seeds, Inc.;

UC = University of California, Davis; WB (MONSANTO) = Westbred LLC

		2012 (Collabora	tive Common Wheat Entry List	
Sample	UC Entry #	Name	Type	Parentage	Source
1	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
2	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)
3	1624	WB DA905-10	HRS	993-191/998-5//SUMMIT/DASH 12	WB (MONSANTO)
4	1679	CLEAR WHITE 515	HWS	Clear White 515 HP Yr5, Yr15, 2NS, Gpc	UC
5	1680	PATWIN 515	HWS	PATWIN Yr5, Yr15	UC
6	1715	UC 1715	HRS	EXPRESS*6/Lr37/RED RIVER 68//SERRA	UC
7	1723	ATOMO	HWS		LIMAGRAIN
8	1724	08SB0073	HRS		LIMAGRAIN
9	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
10	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)
11	1728	WB-JOAQUIN ORO	HRS		WB (MONSANTO)
12	1729	WB-PERLA	HWS		WB (MONSANTO)
13	1730	WB SJ907-229	HRS		WB (MONSANTO)
14	1734	APB W9-3AL	HWS		APB
15	1737	APB NM-1	HRS		APB
16	1738	APB MC-1	HRS		APB
17	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
18	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)

TYPE: HRS = Hard Red Spring; HWS = Hard White Spring

SOURCE: APB = Arizona Plant Breeders; LIMAGRAIN = Limagrain Seeds; RSI (SYNGENTA) = Resource Seeds, Inc.;

UC = University of California, Davis; WB (MONSANTO) = Westbred LLC

		2012 (Collabora	tive Common Wheat Entry List	
Sam	ole UC Entry #	Name	Type	Parentage	Source
1	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
2	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)
3	1624	WB DA905-10	HRS	993-191/998-5//SUMMIT/DASH 12	WB (MONSANTO)
4	1679	CLEAR WHITE 515	HWS	Clear White 515 HP Yr5, Yr15, 2NS, Gpc	UC
5	1680	PATWIN 515	HWS	PATWIN Yr5, Yr15	UC
6	1715	UC 1715	HRS	EXPRESS*6/Lr37/RED RIVER 68//SERRA	UC
7	1723	ATOMO	HWS		LIMAGRAIN
8	1724	08SB0073	HRS		LIMAGRAIN
9	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
10	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)
11	1728	WB-JOAQUIN ORO	HRS		WB (MONSANTO)
12	1729	WB-PERLA	HWS		WB (MONSANTO)
13	1730	WB SJ907-229	HRS		WB (MONSANTO)
14	1734	APB W9-3AL	HWS		APB
15	1737	APB NM-1	HRS		APB
16	1738	APB MC-1	HRS		APB
17	1478	CAL ROJO	HRS	CMT1171-4//PFAU'S'/VEE#5/3/BONUS	RSI (SYNGENTA)
18	1657	BLANCA GRANDE 515	HWS	Blanca Grande Yr5, Yr15	RSI (SYNGENTA)

TYPE: HRS = Hard Red Spring; HWS = Hard White Spring

SOURCE: APB = Arizona Plant Breeders; LIMAGRAIN = Limagrain Seeds; RSI (SYNGENTA) = Resource Seeds, Inc.;

UC = University of California, Davis; WB (MONSANTO) = Westbred LLC

			I	erforn	nance of 2012 Coll	abo	orativ	e En	tries	in Re	egion	al Tr	ials								
ŀ						Г		7	rield (1	b/acre	e)					Proteir	ı (%)		I	\neg	Stripe
5	Sample #	UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp \	⁷ alley		Sac V	alley	SJ Va	alley	Imp V	alley		Rust
L						L	<u> </u>	Rank		Rank		Rank			Rank		Rank		Rank	_	Overall
ſ	1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11			-	11.97	10	13.22	8	\neg	1.0
1 2	2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5		1.1
	3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11		3.9
	4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3		1.0
	5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10		1.1
	6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4		1.1
	7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13		1.9
	8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12		1.1
	11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6		1.0
	12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6		1.2
	13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1		1.1
	14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2		1.2
	15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14		1.1
H	16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9		1.5

		F	erforn	nance of 2012 Coll	labo	orativ	e En	tries	in Re	egion	al Tr	ials							
							3	rield (1	b/acre	;)					Protein	n (%)			Stripe
Sample #	UC Entry #	Name	Type	Source		Sac V		SJ V		Imp V	_		Sac V	_	SJ V		Imp V		Rust
							Rank		Rank		Rank			Rank		Rank		Rank	Overall
1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

			I	Perforn	nance of 2012 Coll	abo	orativ	e En	tries	in Re	egion	al Tr	ials	1							
Ì								3	Tield (1	b/acre	:)					Protein	n (%)				Stripe
	Sample #	UC Entry #	Name	Type	Source		Sac V	alley	SJ V	alley	Imp V	/alley		Sac V	alley	SJ V	alley	Imp V	alley		Rust
1						L		Rank		Rank		Rank			Rank		Rank		Rank	Ш	Overall
	1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	П	1.0
	2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5		1.1
	3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11		3.9
	4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3		1.0
	5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10		1.1
	6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4		1.1
	7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13		1.9
	8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12		1.1
	11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6		1.0
	12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6		1.2
	13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1		1.1
	14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2		1.2
	15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14		1.1
1	16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9		1.5

		F	erforn	nance of 2012 Coll	abo	orativ	e En	tries	in Re	egion	al Tr	ials	1						
							3	rield (1	b/acre	;)					Protein	n (%)			Stripe
Sample #	UC Entry #	Name	Type	Source		Sac V	alley	SJ V	alley	Imp V	⁷ alley		Sac V	alley	SJ V	alley	Imp V	alley	Rust
					L		Rank		Rank		Rank			Rank		Rank		Rank	Overall
1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

			F	Perforn	nance of 2012 Coll	abo	orativ	e En	tries	in Re	egion	al Tr	ials							
ı						Г		7	Tield (1	b/acre	;)					Protein	n (%)			Stripe
	Sample #	UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	Valley		Sac V	alley	SJ V	alley	Imp V	⁷ alley	Rust
						╙		Rank		Rank		Rank			Rank		Rank		Rank	Overall
Ī	1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11			-	11.97	10	13.22	8	1.0
	2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
	3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
	4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
	5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
	6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
	7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
	8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
	11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
	12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
	13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
	14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
	15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
Ŧ	16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

			I	Perforn	nance of 2012 Coll	abo	orativ	e En	tries	in Re	egion	al Tr	ials	\$						
ł								7	rield (1	b/acre	;)					Protein	ı (%)			Stripe
5	Sample #	UC Entry #	Name	Type	Source		Sac V	alley	SJ V	alley	Imp \	7alley		Sac V	alley	SJ V		Imp V	alley	Rust
ŀ						_		Rank		Rank		Rank			Rank		Rank		Rank	Overall
ſ	1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
1	2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
	3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
	4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
	5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
ı	6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
	7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
	8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
	11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
	12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
	13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
	14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
	15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
H	16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

			F	erforn	nance of 2012 Col	labo	orativ	e En	tries	in Re	egion	al Tr	ials							
								,	ield (1	b/acre	:)					Protein	n (%)			Stripe
	Sample #	UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	/alley		Sac V	alley	SJ V	alley	Imp V	⁷ alley	Rust
1						╙		Rank		Rank		Rank			Rank		Rank		Rank	Overall
	1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11			-	11.97	10	13.22	8	1.0
	2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
	3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
	4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
Ш	5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
	6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
	7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
	8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
	11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
	12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
Ţ	13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
	14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
	15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
H	16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

		F	Perforn	nance of 2012 Coll	labo	orativ	e En	tries	in Re	egion	al Tr	ials	1						
1							7	Tield (1	b/acre	;)					Protein	n (%)			Stripe
Sample #	UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	7alley		Sac V	alley	SJ V	alley	Imp V	alley	Rust
							Rank		Rank		Rank			Rank		Rank		Rank	Overall
1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-		11.97	10	13.22	8	1.0
2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

		I	Perforn	nance of 2012 Coll	abo	orativ	e En	tries	in Re	egion	al Tr	ials	3						
							,	Tield (1	b/acre	;)					Protein	n (%)			Stripe
Sample	# UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	/alley		Sac V	alley	SJ V	alley	Imp V	alley	Rust
					<u> </u>		Rank		Rank		Rank			Rank		Rank		Rank	Overall
1, 9, 1	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2, 10, 1	8 1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

			F	Perforn	nance of 2012 Coll	abo	orativ	e En	tries	in Re	egion	al Tr	ials	3						
						Г		7	Tield (1	b/acre	;)					Protein	n (%)			Stripe
Sam	ple#	UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	Valley		Sac V	alley	SJ V	alley	Imp V	alley	Rust
						╙		Rank		Rank		Rank			Rank		Rank		Rank	Overall
1, 9	, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2, 10), 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
	3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
4	1	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
	5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
	5	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
	7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
	3	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
1	1	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
1	2	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
1	3	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
1	4	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
1	5	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
1	6	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

		F	erforn	nance of 2012 Coll	labo	orativ	e En	tries	in Re	egion	al Tr	ials	1						
	Ī						7	rield (1	b/acre	:)					Protein	n (%)			Stripe
Sample #	UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	⁷ alley		Sac V	alley	SJ V	alley	Imp V	alley	Rust
					╙		Rank		Rank		Rank			Rank		Rank		Rank	Overall
1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

			F	erforn	nance of 2012 Coll	abo	orativ	e En	tries i	in Re	egion	al Tr	ials	1						
ı						Г		7	rield (1	b/acre	;)					Protein	n (%)			Stripe
S	ample#	UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	7alley		Sac V	alley	SJ V	alley	Imp V	alley	Rust
L						╙		Rank		Rank		Rank			Rank		Rank		Rank	Overall
Γ	1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2	, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
	3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
	4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
	5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
	6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
	7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
	8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
	11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
	12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
	13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
	14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
	15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
#	16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

			F	Perforn	nance of 2012 Coll	labo	orativ	e En	tries	in Re	egion	al Tr	ials	S						
								7	Tield (1	b/acre	;)					Protein	n (%)			Stripe
Sa	mple #	UC Entry #	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	⁷ alley		Sac V	alley	SJ V	alley	Imp V	alley	Rust
L						_		Rank		Rank		Rank			Rank		Rank		Rank	Overall
1	, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2,	10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
	3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
	4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
	5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
	6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
	7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
	8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
	11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
	12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
	13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
	14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
	15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
H	16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

		I	Perforn	nance of 2012 Coll	labo	orativ	e En	tries	in Re	egion	al Tr	ials							
							,	ield (l	b/acre	:)					Protein	n (%)			Stripe
Sampl	e# UC Entry#	Name	Type	Source		Sac V	⁷ alley	SJ V	alley	Imp V	7alley		Sac V	alley	SJ V	alley	Imp V	alley	Rust
	1						Rank		Rank		Rank			Rank		Rank		Rank	Overall
1, 9,	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2, 10,	18 1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

		F	Perforn	nance of 2012 Col	labo	orativ	e En	tries	in Re	egion	al Tr	ials	3						
Sample #	UC Entry #	Name	Туре	Source		Sac V		Yield (1 SJ V		e) Imp \	/atley		Sac V	aller	Protein SJ V		Imp V	Zallav.	Stripe Rust
Sample #	CC Entry #	Ivanic	Турс	Source		Sac v	Rank	33 V	Rank	тір	Rank		Sac v	Rank	33 V	Rank	_	Rank	Overall
1, 9, 17	1478	CAL ROJO	HRS	RSI (SYNGENTA)		4000	13	4940	13	6790	11		-	-	11.97	10	13.22	8	1.0
2, 10, 18	1657	BLANCA GRANDE 515	HWS	RSI (SYNGENTA)		3470	14	5790	5	7670	4		-	-	12.83	7	13.72	5	1.1
3	1624	WB DA905-10	HRS	WB (MONSANTO)		5770	2	6250	2	7560	5		10.11	12	11.78	12	12.92	11	3.9
4	1679	CLEAR WHITE 515	HWS	UC		5210	5	5190	12	6700	14		11.72	5	12.84	6	14.09	3	1.0
5	1680	PATWIN 515	HWS	UC		4940	7	5880	4	7250	8		11.59	6	12.08	9	12.98	10	1.1
6	1715	UC 1715	HRS	UC		5400	3	5480	8	6730	13		11.39	7	13.33	2	14.00	4	1.1
7	1723	ATOMO	HWS	LIMAGRAIN		5970	1	6300	1	8300	2		10.57	11	12.20	8	12.30	13	1.9
8	1724	08SB0073	HRS	LIMAGRAIN		5070	6	5260	11	6760	12		11.32	8	11.97	10	12.65	12	1.1
11	1728	WB-JOAQUIN ORO	HRS	WB (MONSANTO)		4630	9	5440	9	7840	3		12.70	1	13.38	1	13.66	6	1.0
12	1729	WB-PERLA	HWS	WB (MONSANTO)		4360	10	5640	7	7540	6		12.06	2	13.13	4	13.66	6	1.2
13	1730	WB SJ907-229	HRS	WB (MONSANTO)		5280	4	6060	3	7510	7		11.85	3	13.15	3	14.54	1	1.1
14	1734	APB W9-3AL	HWS	APB		4770	8	5350	10	7180	9		11.80	4	12.89	5	14.27	2	1.2
15	1737	APB NM-1	HRS	APB		4150	11	5730	6	8410	1		10.66	10	10.70	14	11.21	14	1.1
16	1738	APB MC-1	HRS	APB		4010	12	4940	13	7160	10		10.69	9	11.75	13	13.20	9	1.5

2013 Collaborative Wheat Program

- Call for entries has been sent out for 2013
- Potential changes to program?
 - In addition to rankings, add ratings?
 - High quality, low quality, average quality
 - Rankings can be deceiving (or difficult to determine for the mills) if many varieties are of similar quality
 - Other suggestions?

2012 Data Available!

www.smallgrains.ucdavis.edu

Thank you for coming!