



Request for Support for Registration For TR15405 (*ABI Growler*)

Crop: Barley (*Hordeum vulgare*)

Type: Two Row Spring Malt

Proposed Name: ABI Growler (see U.S. PVPA Application 201500121)

Proposers: Joshua Butler
Busch Agricultural Resources, LLC.
3515 Richards Lake Road
Ft. Collins, CO USA 80524

Test Number: TR15405 aka 2B09-3425 or ABI Growler

Pedigree: 2B05-0550/2B99-2763-10

Area of Adaptation: Intermountain United States and Western Canada.

Strengths:

Malting profile consistent with Anheuser-Busch-InBev brewing requirements; TR15405 (ABI Growler) has high levels of enzymes, α -amylase and diastatic power similar to or better than AC Metcalfe. Overall malting profile is equivalent to, or superior to both AC Metcalfe and AAC Synergy, with well-balanced modification and consistently high levels of malt extract.

Shorter plant height; TR15405 (ABI Growler) averaged ~5 cm shorter than AC Metcalfe in the two year average of the 2015 and 2016 Western Canadian Coop Evaluations.

Neutral:

Similar yield to checks; TR15405 (ABI Growler) yields are slightly better than AC Metcalfe and slightly below CDC Copeland in the two year average of all (35) locations in the 2015 and 2016 Western Canadian Coop.

Weaknesses:

Disease Resistance; Net Form Net Blotch.

Description: TR15405 (ABI Growler) is a two-rowed, mid-season spring barley that is currently being evaluated in the final stages of plant scale testing at Anheuser-Busch InBev. It has excellent malting quality and is well adapted to the Intermountain USA and western Canada. The complete description, breeding history, and extended pedigree of TR15405 are shown in the section on additional information from the US PVPA application below.

Table 1. Mean Grain Yield (Kg / Ha) of TR15405 (ABI Growler) vs. AC Metcalfe.

Western Two-Row Cooperative Tests Two-year Summary (2015-2016).

Cultivar	Soil Zone Yield kg/ha. Check = AC Metcalfe							
	Black	% Check	Black/ Gray	% Check	Brown	% Check	Overall	% Check
CDC Copeland	5301	100	7026	105	5573	105	6009	104
AC Metcalfe	5286	100	6671	100	5316	100	5774	100
AAC Synergy	6490	123	7463	112	5883	111	6563	114
CDC Austenson	6693	127	7541	113	5995	113	6685	116
Champion	6066	115	7585	114	5936	112	6531	113
TR15405	5056	96	7040	106	5507	104	5930	103
Station Years	8		12		15		35	

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Two-Row Barley Registration Report 2015 and 2016.

Table 2. Mean Agronomic Performance of TR15405 (ABI Growler) vs. Checks.

Western Two-Row Cooperative Tests Two-year Summary (2015-2016).

Cultivar	Heading (Days)	Maturity (Days)	Height (cm)	Lodging (1-9)	Test Weight (Kg hL ⁻¹)	Kernel Weight (g M ⁻¹)	%Plump >6/64	%Thin <5/64
CDC Copeland	58.8	93.4	84.6	3.8	63.2	46.8	92.7	3.1
AC Metcalfe	56.4	92.9	79.4	5.3	64.4	45.1	92.6	2.4
AAC Synergy	56.9	93.4	79.3	4.2	64.4	47.9	94.7	1.8
CDC Austenson	58.4	94.6	79.1	3.3	66.4	47.6	92.1	3.1
Champion	55.4	93.4	77.5	3.4	65.9	49.1	92.4	2.4
TR15405	58.3	93.1	74.7	3.6	63.0	46.5	94.1	2.2
Station Years	30	27	34	12	32	29	26	10

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Two-Row Barley Registration Report 2015 and 2016.

Table 3a. Disease Reaction Summaries of TR15405 (ABI Growler) vs. Checks.

Western Two-Row Cooperative Tests Two-year Summary (2015-2016).

Cultivar	Net Blotch					Spot Blotch				Fusarium Head Blight					
	Seedling			Netform	Spotform	Seedling	Field Ratings			Brandon			Morden		Charlottetown
	102	857	858	Lacombe	Lacombe	1903	Brand	Melf	Sask	HEAD	FHB	DON	FHB	DON	DON
CDC															
Copeland	2	2	9	1.5	5.0	5	8.0	8.0	4.5	60.5	1.8	9.0	2.5	39.7	60.6
AC Metcalfe	8	2	8	5.5	5.0	8	6.5	3.8	3.0	56.0	1.8	14.3	4.3	88.5	41.7
AAC Synergy	1	2	5	0.0	4.5	4	2.0	2.0	1.8	55.0	1.8	13.9	3.2	39.2	93.9
CDC															
Austenson	1	2	7	0.0	5.0	4	3.0	3.0	2.3	60.0	1.5	22.2	3.3	64.1	88.1
Champion	9	3	8	4.5	5.0	7	7.0	4.8	3.5	53.5	2.8	23.1	4.7	83.1	63.0
TR15405	8	2	8	8.0	5.5	7	8.0	5.0	4.0	58.5	1.5	10.3	3.8	67.2	53.5

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Two-Row Barley Registration Report 2015 and 2016.

Table 3b. Disease Reaction Summaries of TR15405 (ABI Growler) vs. Checks.

Western Two-Row Cooperative Tests Two-year Summary (2015-2016).

Cultivar	Stem Rust				Scald		
	Seedling MCC IT	Morden Field Ratings		2016 CDC Rpg#1	Seedling WRS2275	Lacombe	Edmonton
		Sr Sev	SR IT				
CDC Copeland	0;	1	r	R	MS	7.0	8.0
AC Metcalfe	0;	1	r	R	S	6.0	6.5
AAC Synergy	;12-	1	r	R	S	6.5	7.0
CDC Austenson	0;	1	r	R	S	7.0	7.0
Champion	12-	20	ms	R	S	7.0	8.5
TR15405	;11+	1	r	R	S	6.0	3.5

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Two-Row Barley Registration Report 2015 and 2016.

Table 3c. Disease Reaction Summaries of TR15405 (ABI Growler) vs. Checks.

Western Two-Row Cooperative Tests Two-year Summary (2015-2016).

Cultivar	Smuts				BYDV
	S'toon (%)		Moden (%)		U of Ill
	Covered	Loose	<i>U. hordei</i>	<i>U. nigra</i>	
CDC					
Copeland	4.9	80.0	20.0	15.0	6.0
AC Metcalfe	7.6	0.0	8.0	10.0	5.5
AAC Synergy	18.8	84.2	20.0	20.0	6.5
CDC					
Austenson	0.0	66.7	6.0	4.0	4.5
Champion	10.4	88.9	40.0	32.0	3.5
TR15405	2.8	81.8	22.0	8.0	5.5

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Two-Row Barley Registration Report 2015 and 2016.

Table 4. Mean Grain Yield (Kg / Ha) of TR15405 (ABI Growler) vs. AC Metcalfe.
Western Two-Row Cooperative Tests (2015).

Cultivar	Soil Zone Yield kg/ha. Check = AC Metcalfe							
	Black	% Check	Black/ Gray	% Check	Brown	% Check	Overall	% Check
CDC Copeland	5671	105	6395	104	5404	103	5817	104
Xena	6120	113	6691	109	5680	108	6140	109
AC Metcalfe	5406	100	6165	100	5258	100	5613	100
AAC Synergy	6472	120	6722	109	5713	109	6247	111
CDC Austenson	6859	127	6763	110	5661	108	6332	113
Champion	4959	92	6845	111	5852	111	6287	112
TR15405	5308	98	6185	100	5426	103	5666	101
Station Years	4		6		7		17	

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Six-Row Barley Registration Report 2015.

Table 5. Mean Agronomic Performance of TR15405 (ABI Growler) vs. Checks.
Western Two-Row Cooperative Tests Two-year Summary (2015).

Cultivar	Heading (Days)	Maturity (Days)	Height (cm)	Lodging (1-9)	Test Weight ((Kg hL ⁻¹)	Kernel Weight (g M ⁻¹)	%Plump >6/64	%Thin <5/64
CDC Copeland	56.9	91.7	77.8	5.9	63.8	47.6	93.9	4.4
Xena	55.0	91.6	73.9	5.3	66.0	49.7	95.1	2.7
AC Metcalfe	54.5	91.7	75.3	6.3	65.7	47.0	95.4	3.1
AAC Synergy	54.9	92.0	75.1	5.5	65.2	49.3	96.1	2.2
CDC Austenson	56.9	93.4	73.2	4.3	67.2	49.8	94.3	3.5
Champion	53.8	92.4	74.0	4.4	66.9	50.7	94.6	2.6
TR15405	56.5	92.2	69.6	4.0	63.9	48.3	96.0	3.1
Station Years	14	13	17	5	17	15	13	6

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Six-Row Barley Registration Report 2015.

Table 6. Mean Grain Yield (Kg / Ha) of TR15405 (ABI Growler) vs. AC Metcalfe.
Western Two-Row Cooperative Tests (2016).

Cultivar	Soil Zone Yield kg/ha. Check = AC Metcalfe							
	Black	% Check	Black/ Gray	% Check	Brown	% Check	Overall	% Check
CDC								
Copeland	4930	95	7657	107	5720	107	6190	104
AC Metcalfe	5166	100	7176	100	5367	100	5925	100
AAC Synergy	6508	126	8203	114	6033	112	6862	116
CDC								
Austenson	6528	126	8319	116	6288	117	7018	118
Champion	5923	115	8324	116	6010	112	6762	114
TR15405	4805	93	7895	110	5579	104	6179	104
Station Years	4		6		8		18	

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Six-Row Barley Registration Report 2016.

Table 7. Mean Agronomic Performance of TR15405 (ABI Growler) vs. Checks.
Western Two-Row Cooperative Tests Two-year Summary (2016).

Cultivar	Heading (Days)	Maturity (Days)	Height (cm)	Lodging (1-9)	Test Weight ((Kg hL ⁻¹)	Kernel Weight (g M ⁻¹)	%Plump >6/64	%Thin <5/64
CDC Copeland	60.4	95.0	91.4	2.3	62.4	46.0	91.4	1.2
AC Metcalfe	58.1	94.0	83.6	4.5	63.0	43.2	89.8	1.2
AAC Synergy	58.6	94.8	83.5	3.2	63.5	46.4	93.2	1.1
CDC								
Austenson	59.7	95.7	85.1	2.6	65.5	45.2	89.8	2.5
Champion	56.8	94.2	80.9	2.8	64.7	47.3	90.2	2.0
TR15405	59.8	94.0	79.7	3.2	62.0	44.6	92.2	1.0
Station Years	16	14	17	7	15	14	13	4

Reference. PGDC Barley and Oat Sub-Committee website... Western Co-operative Six-Row Barley Registration Report 2016.

Table 8a. Mean Malting Quality Performance of TR15405 (ABI Growler) vs. Checks.

Western Two-Row Cooperative Tests (2015) Mean of 3 Stations.

Cultivar	Barley					
	Plump		1000		Germination Energy	
	>7/64	>6/64	K wt	Pro	4ml	8ml
	%	%	g	%	%	%
CDC Copeland	62.0	91.7	46.1	12.2	97.3	94.7
AC Metcalfe	70.5	94.7	46.1	12.9	97.7	88.3
AAC Synergy	73.6	94.6	47.4	12.3	99.3	92.7
TR15405	71.1	95.7	47.3	11.9	93.0	93.0

Reference. *PGDC Barley and Oat Sub-Committee website... Western Co-operative Six- Row Barley Registration Report 2015.*

Table 8b. Mean Malting Quality Performance of TR15405 (ABI Growler) vs. Checks.

Western Two-Row Cooperative Tests (2015) Mean of 3 Stations.

Cultivar	Malt					
	Steepout	Friab	PUG	P&B	Diastatic	Alpha-
	Moist				Power	Amylase
	%	%	%	%	°L	D.U.
CDC Copeland	44.7	83.4	0.5	3.6	136.0	61.3
AC Metcalfe	45.0	71.6	3.1	4.3	159.0	83.7
AAC Synergy	45.3	80.8	4.2	4.8	144.0	81.5
TR15405	46.2	89.4	1.1	3.6	171.0	86.9

Reference. *PGDC Barley and Oat Sub-Committee website... Western Co-operative Six- Row Barley Registration Report 2015.*

Table 8c. Mean Malting Quality Performance of TR15405 (ABI Growler) vs. Checks.

Western Two-Row Cooperative Tests (2015) Mean of 3 Stations.

Cultivar	Wort					
	Fine	Soluble	Kolbach	B-Glucan	Visc.	FAN
	Extract	Protein	Index			
	%	%	%	mg/L	cP	mg/L
CDC Copeland	79.9	4.70	39.8	86	1.46	188
AC Metcalfe	79.9	5.14	40.9	97	1.46	215
AAC Synergy	80.7	5.03	41.3	49	1.44	202
TR15405	80.1	5.25	45.3	73	1.45	230

Reference. *PGDC Barley and Oat Sub-Committee website... Western Co-operative Six- Row Barley Registration Report 2015.*

Table 9a. Mean Malting Quality Performance of TR15405 (ABI Growler) vs. Checks.

Western Two-Row Cooperative Tests (2016) Mean of 3 Stations.

Cultivar	Barley					
	Plump		1000		Germination Energy	
	>7/64	>6/64	K wt	Pro	4ml	8ml
	%	%	g	%	%	%
CDC Copeland	70.1	94.8	44.8	11.1	97.7	88.7
AC Metcalfe	59.1	93.4	42.3	11.7	97.7	77.3
AAC Synergy	76.2	95.5	44.9	11.0	98.0	75.7
TR15405	52.3	90.2	41.0	10.9	97.7	97.7

Reference. *PGDC Barley and Oat Sub-Committee website... Western Co-operative Six-Row Barley Registration Report 2016.***Table 9b. Mean Malting Quality Performance of TR15405 (ABI Growler) vs. Checks.**

Western Two-Row Cooperative Tests (2016) Mean of 3 Stations.

Cultivar	Malt					
	Steepout				Diastatic	Alpha-
	Moist	Friab	PUG	P&B	Power	Amylase
	%	%	%	%	°L	D.U.
CDC Copeland	43.9	89.4	1.0	8.5	134.0	64.4
AC Metcalfe	44.8	83.7	2.8	10.1	162.0	95.6
AAC Synergy	44.8	92.8	1.3	8.5	136.0	80.9
TR15405	45.8	92.8	1.5	7.7	165.0	101.0

Reference. *PGDC Barley and Oat Sub-Committee website... Western Co-operative Six-Row Barley Registration Report 2016.***Table 9c. Mean Malting Quality Performance of TR15405 (ABI Growler) vs. Checks.**

Western Two-Row Cooperative Tests (2016) Mean of 3 Stations.

Cultivar	Wort					
	Fine	Soluble	Kolbach			
	Extract	Protein	Index	B-Glucan	Visc.	FAN
	%	%	%	mg/L	cP	mg/L
CDC Copeland	81.1	5.00	44.9	94	1.46	197
AC Metcalfe	81.7	5.43	46.2	50	1.44	237
AAC Synergy	81.8	5.26	46.4	51	1.45	220
TR15405	80.8	5.49	48.7	42	1.44	241

Reference. *PGDC Barley and Oat Sub-Committee website... Western Co-operative Six-Row Barley Registration Report 2016.*

Table 10. Mean Malting Quality Performance of TR15405 (ABI Growler) vs. Checks.
Western Two-Row COLAB Tests (2016) Mean of 6 Stations.

Cultivar	6/64- Plump	Protein	Barley P&B	Malt P&B	F. Ext.	Malt Protein	Soluble Protein	S/T Ratio	Diast. Power	Alpha- Amylase	Beta- Glucan	Viscosity	Friability	FAN
	%	%	%	%	%	%	%	%	°L	D.U.	mg/L	cP	%	mg/L
CDC Copeland	96.0	10.9	1.3	2.3	81.9	10.3	5.3	50.3	145.1	74.2	81	1.4	91.0	199
AC Metcalfe	95.1	11.4	1.3	3.3	82.0	10.7	5.4	49.3	162.9	94.9	82	1.4	88.5	233
AAC Synergy	95.4	11.0	2.4	3.3	82.2	11.0	5.5	49.8	145.2	76.4	92	1.4	90.9	233
TR15405	94.4	11.1	1.2	4.8	81.4	10.7	5.6	51.4	172.4	93.5	81	1.4	88.4	258

Reference. *Email from M. Brophy, Feb 2018*

EXHIBIT A

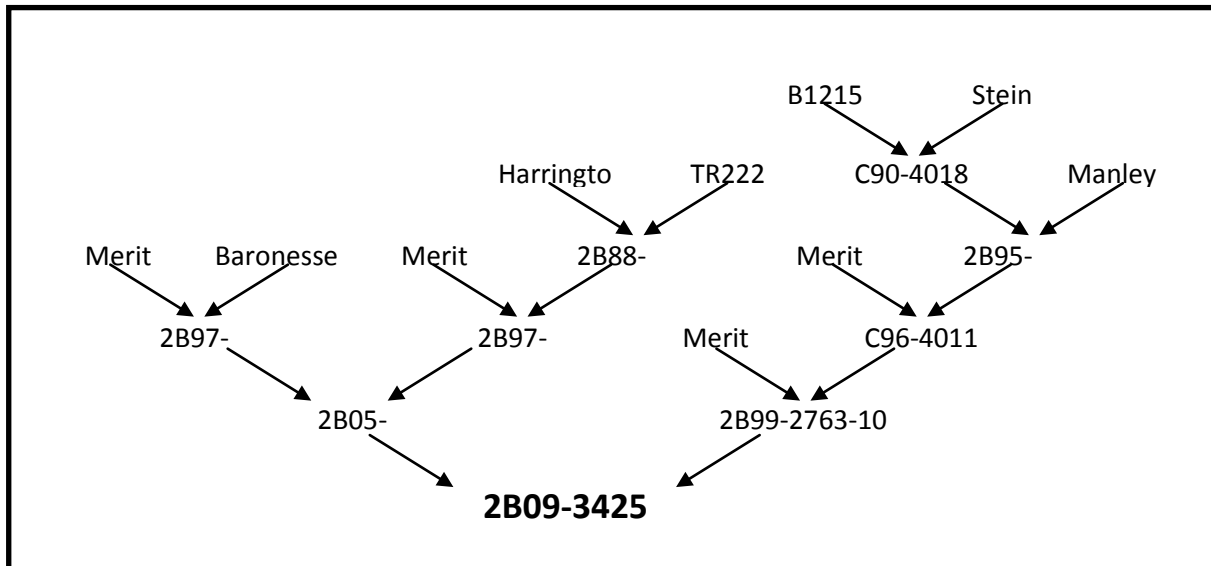
ORIGIN AND BREEDING HISTORY OF ABI Growler (2B09-3425)

PEDIGREE: 2B05-0550/2B99-2763-10

Date of Cross: Fall 2005

HISTORY:

The line **ABI Growler** was derived from the cross (C06-1572) made in fall 2005 in Ft. Collins, CO between 2B05-0550 as female and 2B99-2763-10 used as male. The female parent is a BARI breeding line with an extended pedigree of 2B97-4527/2B97-4484. The male parent is also a BARI breeding line with an extended pedigree of Merit / C96-4011. The extended pedigrees of both parents contain multiple instances of Merit; *as seen below ABI Growler (2B09-3425) is expected to have inherited 43.75% of its alleles by descent from Merit.*



The F₁ was increased in the greenhouse in Ft. Collins, CO during the winter/spring of 2005/06, followed by an F₂ population in Ft. Collins, CO in the spring of 2006, an F₃ population in Yuma, AZ during the winter/spring of 2006/07, an F₄ population in Fort Collins, CO in the spring of 2007, then by an F₅ SSD generation in the greenhouse during the winter /spring of 2007/08. A total of 54 F_{5:6} head rows were planted in Fairfield, MT in the spring of 2008 and row 92-22 was the only row that was selected and increased in Christchurch, NZ during the winter/spring of 2008/09 where it was again selected advanced to Y1. 2B09-3425 tracks back to a single F_{6:7} row (NZ2292). This row was assigned the Y1 experimental number 2B09-3425 and entered into replicated performance testing in the spring of 2009.

From the first year of yield testing through the release of the variety, continual assessments of numerous agronomic and malting traits are carried out. These traits are assessed on samples grown at several locations per year and statistically compared to the most widely grown commercial varieties, plus selected advanced experimental lines. The varieties ABI Voyager, Merit 57, and Conrad were used throughout the testing program. 2B09-3425 was entered into the Western Spring Barley Nursery regional performance nurseries in 2013 through 2014. It is targeted as a two-rowed malting barley for the states of Idaho, Montana and North Dakota. The following criteria are assessed at each stage of yield trial testing:

Agronomic traits:

Yield

Straw strength (lodging)

Height

Maturity

Test weight

Resistance to scald

Malting traits:

Kernel plumpness

Extract Level

Total protein

Soluble protein

Alpha amylase

Diastatic power

Resistance to net blotch

Wort viscosity

Resistance to spot blotch

Turbidity

Our most important agronomic traits are yield, straw strength and disease resistance. Our most important malting traits are extract level, protein and enzyme levels (alpha amylase and diastatic power).

In 2010 head selections were made at Fort Collins, Colorado from a uniform and stable F10 population to initiate purification and multiplication. 240 Headrows were grown in Ft Collins 2011. 120 of the 240 headrows were selected, uniform and true to type. Of the 120 selected rows, 27 were discarded for poor germination and 93 were submitted for genotyping using 35 highly polymorphic markers covering the 7 chromosomes. 85 of the 93 rows were genotypically identical for those markers. The 85 headrows were bulked together to create the source of the Breeder Seed. A 0.5 acre Breeder Seed field was planted in Ft Collins in 2013. ABI Growler (2B09-3425) has been uniform and stable from F10 through F13. Less than .05% of the plants were rogued from fields in 2013. Approximately 95% of the rogued plants were 2 to 4 centimeters taller than ABI Growler (2B09-3425). Less than .05% total variant plants may be encountered in subsequent generations. Registered seed is being grown in Idaho in 2015. Certified seed will be available in 2016.

EXHIBIT B

STATEMENT OF DISTINCTNESS

ABI Growler (2B09-3425) is most similar to the spring barley variety “**ABI Voyager** “; however it can be distinguished by the following morphological characteristics:

ABI Growler (2B09-3425) has long rachis hairs and no shoulder hairs. **ABI Voyager** has long rachis hairs and shoulder hairs.

ABI Growler (2B09-3425) has long margin hairs on the base of first segment, **ABI Voyager** does not.

EXHIBIT D

BOTANICAL DESCRIPTION OF ABI Growler (2B09-3425)

ABI Growler (2B09-3425) is a two-rowed, mid-season spring barley bred and developed by Busch Agricultural Resources, LLC. Ft. Collins, Colorado. It has excellent malting quality.

Juvenile growth habit is erect. Plant color at boot is green with an upright flag leaf. Head shape is parallel and mid-lax in density with a slightly nodding head type. Neck is straight with a saucer shaped collar that forms a slight V in the front. First rachis segment is slightly bent back and is mid-sized. Base of the first segment is a margin flange with hairs on the margin. Rachis shape is plain with long hairs covering the margin edge and no shoulder hairs. Glume length is one half the length of the kernel and glume hair is long and confined to a band. The glume awns are rough and equal to the length of the glume. Lemma awns are rough, longer than the spike and persistent. Lemma teeth are frequent and confined to the nerves only. Lemma hair is absent and the base is a depression. Lateral floret formation is divergent with rounded lemma tips. Seed is covered, long, and semi-wrinkled with a slight wax present. The aleurone is colorless. Palea tips are long in size and slightly raised. Rachilla length is one-third the length of the kernel with many long hairs that are thicker at the base. Ventral crease is open and lack crease hairs and fence hairs.

ABI Growler (2B09-3425) is broadly adapted to the Inter-mountain west of the U.S. and the Prairie Provinces of western Canada. The mid-season maturity, exceptional grain plumpness may even allow ABI Growler (2B09-3425) line to compete with other two-rowed varieties in the upper Midwest. It has done quite well in both irrigated and rain fed trials over a wide geography. Wide area of adaptation is generally a valuable trait indicating yield stability over years and climates.

EXHIBIT D

AGRONOMIC CHARACTERISTICS OF ABI Growler vs. ABI Voyager

Variety	Yield Trials (2011-2014)*						
	Grain		Relative	Plant	Foliar		
	Yield (Bu/ac)	Days to Heading	Maturity (1-9) §	Height (cm)	Lodging (1-9)†	Disease (%Severity)	Net Blotch (%Severity)
Station years	84	35	39	47	33	46	3
ABI Growler	115.5	74.03	6.31	86.7	3.0	24	14
ABI Voyager	113.4	73.52	5.29	94.5	9.3	20	10
t-Test	0.08	0.154	0.298	<.00001	0.06	0.003	0.635

* All fully paired data (where both lines appeared in the same trial) available in BARI Barley Research database system as of (1/28/14).

§ Relative Maturity 1= early and 9 = late

† Lodging of 1 = no lodging and 9 = severe lodging.

MALTING QUALITY CHARACTERISTICS:

Quality Tests (2006-2013)*

Variety	Barley Protein (%)	Malt Protein (%)	Plump Kernels (%)	Fine Extract (%)	Wort Protein (%)	S/T (%)	F-C Diff. (%)	B-Glucan ppm	Diasatic. Power (°L)	Alpha-Amylase (20° DU)
Station years	19	23	19	23	23	23	5	22	22	22
ABI Growler	12.4	11.6	87.5	81.4	5.25	46.1	1.14	140	159.2	92.34
ABI Voyager	12.7	12.0	94.7	80.8	5.62	47.5	0.73	142	175.4	86.56
t-Test	0.12	0.15	0.00015	0.042	0.0001	0.25	0.10	0.92	0.0038	0.0255

Agronomic and quality abbreviation defined.

Grain Yield = The yield is measured in bushel per acre

Plant Height = The height of the plant in centimeters

Lodging 1-9 = The percent of lodging, 1= 0%- 10% and 9= 90% - 100% lodging

Relative Maturity = Is a rating of maturity. 1= very early and 9 = very late

Net Blotch = The percent of the plant infected with net blotch

Plump Kernels = The percent of plump kernels

Barley Protein = The protein measurement of the seed

Malt Protein = The protein measurement of the malt

Fine Extract = The measurement of extract from barley ground to a fine particle size

F-C Diff = The difference between fine and the course grind.

Wort Protein = The protein measurement of the wort

S/T = The soluble protein divided by the total protein

Diastatic Power = Enzyme measurement

Alpha Amylase = Enzyme measurement

Beta Glucan = Measured in the malt

EXHIBIT E.

STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

Busch Agricultural Resources, Incorporated is applicant for protection in this case being:

- a.) The incorporated business registered in Delaware for and within regular employees has bred **ABI Growler (2B09-3425)**.

- b.) The proprietary owner and intending commercial seller of **ABI Growler (2B09-3425)**.