504818534 03/14/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4865269

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KATHRYN A. FORTH	04/04/2013
DAVID L. HYTEN JR.	04/02/2013
ANDREA B. KALVIG	04/11/2013
KEITH E. KING	04/03/2013
LESLIE C. KUHLMAN	04/18/2013
DONALD KYLE	04/04/2013
THAI LEE	04/03/2013
JON M. MASSMAN	04/08/2013
EDWIN J. MENDEZ	04/03/2013
SALLY A. SANTIAGO-PARTON	04/04/2013
JOSHUA M. SHENDELMAN	04/10/2013
JORDAN D. SPEAR	04/03/2013
JOHN B. WOODWARD	04/03/2013
YANWEN XIONG	04/11/2013

RECEIVING PARTY DATA

Name:	PIONEER HI-BRED INTERNATIONAL, INC.
Street Address:	7100 NW 62ND AVENUE
Internal Address:	P.O. BOX 1014
City:	JOHNSTON
State/Country:	IOWA
Postal Code:	50131-1014

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15920619

CORRESPONDENCE DATA

Fax Number: (515)535-6883

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 515-535-5859

> **PATENT** REEL: 045202 FRAME: 0428

504818534

Email: IPSUPPORT@PIONEER.COM

Correspondent Name: PIONEER HI-BRED INTERNATIONAL, INC.

Address Line 1: 7250 NW 62ND AVENUE

Address Line 2: P.O. BOX 552

Address Line 4: JOHNSTON, IOWA 50131-0552

ATTORNEY DOCKET NUMBER:	5346-US-PCD
NAME OF SUBMITTER:	MICHAEL STIMSON
SIGNATURE:	/Michael Stimson/
DATE SIGNED:	03/14/2018

Total Attachments: 16

source=5346P Assignment Signed#page1.tif source=5346P_Assignment_Signed#page2.tif source=5346P_Assignment_Signed#page3.tif source=5346P_Assignment_Signed#page4.tif source=5346P_Assignment_Signed#page5.tif source=5346P Assignment Signed#page6.tif source=5346P Assignment Signed#page7.tif source=5346P_Assignment_Signed#page8.tif source=5346P_Assignment_Signed#page9.tif source=5346P Assignment Signed#page10.tif source=5346P Assignment Signed#page11.tif source=5346P_Assignment_Signed#page12.tif source=5346P_Assignment_Signed#page13.tif source=5346P Assignment Signed#page14.tif source=5346P_Assignment_Signed#page15.tif source=5346P_Assignment_Signed#page16.tif

> PATENT REEL: 045202 FRAME: 0429

WORLDWIDE ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and in fulfillment of a pre-existing obligation of assignment, we, Kathryn Anne Forth, David L. Hyten, Jr., Andrea B. Kalvig, Keith E. King, Leslie C. Kuhlman, Donald Kyle, Thai Lee, Jon M. Massman, Edwin J. Mendez, Sally A. Santiago-Parton, Joshua M. Shendelman, Jordan D. Spear, John B. Woodward and Yanwen Xiong at PIONEER HI-BRED INTERNATIONAL, INC., 7250 NW 62nd Avenue, P.O. Box 552, Johnston, Iowa 50131-0552, the undersigned inventor(s) have sold and assigned, and by these presents hereby sells and assigns, as indicated below, unto

PIONEER HI-BRED INTERNATIONAL, INC. 7100 NW 62nd Avenue P.O. Box 1014 Johnston, Iowa 50131-1014

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the inventions in "COMPOSITIONS ASSOCIATED WITH SOYBEAN REPRODUCTIVE GROWTH AND METHODS OF USE", including all improvements to said invention ("Invention")

as set forth in this United States Patent Application and in the PCT Patent Application

	executed concurrently herewith
	executed on
	US Serial No. 61/781,826 filed March 14, 2013
	PCT Serial No. filed ,
which	claim(s) priority as of filed Serial No

including all provisional, non-provisional, divisional, renewal, substitute, continuation, continuations-in-part, international and Convention applications based in whole or in part upon said Inventions or upon said Applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said Inventions or upon said Applications and every priority right that is or may be predicated upon or arise from said Inventions, said Applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said Inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; said assignment including the right to bring legal proceedings and obtain any relief to which the undersigned would have been entitled if this assignment had not been made, in respect of any infringements of the undersigned's rights in relation to said inventions, Applications and Letters Patent which occur before or after the date of this assignment; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other

> PATENT REEL: 045202 FRAME: 0430

right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said Inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said Inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said Inventions, and to testify in any proceedings relating to said Inventions, patent applications. Letters Patent, and to bind our heirs, legal representatives, and assigns, promptly to communicate to said Assignee or its representatives any facts known to us relating to said Inventions, to testify in any interference or legal proceedings involving said Inventions, to execute any additional papers which may be requested to confirm the right of the Assignee, its representatives, successors or assigns to secure patent or similar protection for said Inventions in all countries and to vest in the Assignee complete title to said Inventions and Letters Patent, without further compensation, but at the expense of said Assignee, its successors, assigns and other legal representatives.

The undersigned hereby grant an authorized representative of Assignee the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office or the Patent Office of any other country for recordation of this Assignment.

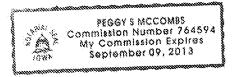
This assignment is deemed to be effective at least as early as of March 14, 2013.

ATTORNEY DOCKET NUMBER: 5346P

In Witness Whereof, I have a April 2013.	executed this	Worldwide	Assignment	on the	<u>4</u> day	of
Kathryn A. Forth Name of Inventor	AADDAAAAAA	Signatu	re of Inventor	pway	··············	
State of Illinois)					
County of Bureau)					
I certify that I know or have appeared before me and said acknowledged it to be his free a instrument.	person acknow	owledged ti	hat he signe	d this inst	trument	and
	Dated	40420)13			48
	Signature of Notary Public	Chill	alway	ncho	$ \sqrt{I}$	COMPRESSION CHELSEN CH

My appointment expires 03.19.30

In Witness Whereof, I have a	executed this \	Norldwide	Assignment	on the	2	day	of
David L. Hyten, Jr. Name of Inventor		Signatu	127/2) re of Invento	1/2			
State of)						
County of POLK)						
I certify that I know or haw he appeared before me and sacknowledged it to be his free a instrument.	said person ack	nowledged	that he sign	ned this i	nstrum	ent a	and
	Dated	<u> </u>	<u>/8/13</u>	***************************************			
	Signature of Notary Public	R	\$\$\$ 5 1	W Or	<u>mls</u>	9	an antioner.
	Printed Name						
	My appointmen	nt expires _	9.9.				



In Witness Whereof, I have 2013.	executed this Worldwide Assignment on the <u>II</u> day of
Andrea B. Kalvig Name of Inventor	Signature of Inventor)
State of TOUCL)
County of <u>Dauas</u>)
who appeared before me and	have satisfactory evidence that Andrea B. Kalvig is the person said person acknowledged that he signed this instrument and and voluntary act for the uses and purposes mentioned in the
	Dated 4-11-13
SHELLIE SCHABEN Commission Number 720662 My Commission Expires January 24, 2015	Signature of Notary Public Shulle School
	Printed Name <u>Shellie Schaloen</u>
	My appointment expires 1-24-2015

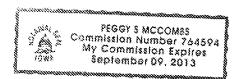
	Don & 11'
Keith E. King Name of Inventor	Signature of Inventor)
State of <u>Taua</u>	
EN 387	
	have satisfactory evidence that Keith E. King is the person who
I certify that I know c appeared before me and s	Thave satisfactory evidence that Keith E. King is the person who aid person acknowledged that he signed this instrument and see and voluntary act for the uses and purposes mentioned in the Dated April 3.2013
I certify that I know of appeared before me and a acknowledged it to be his for	aid person acknowledged that he signed this instrument and be and voluntary act for the uses and purposes mentioned in the Dated April 3.2013 Signature of Notary Public Amul Thomas
I certify that I know of appeared before me and a acknowledged it to be his for	aid person acknowledged that he signed this instrument and be and voluntary act for the uses and purposes mentioned in the

in Witness Whereof, I have April 2013.	executed this Worldwide Assignment on the 17 day of
Leslie C. Kuhlman Name of Inventor	Signature of Inventor)
State of Kaasas)
County of Douglas	
who appeared before me and	ave satisfactory evidence that Leslie C. Kuhlman is the person said person acknowledged that he signed this instrument and and voluntary act for the uses and purposes mentioned in the
	Dated 4/18/13
Kallon Moomau Notary Public State of Kansas My Appt. Exp. 7/12/16	Signature of Notary Public Printed Name Kailan Magnus
	My appointment expires 7/12/16

ATTORNEY DOCKET NUMBER: 5346P

In Witness Whereof, I have April , 2013.	executed this Worldwide Assignment on the 4 de	ay of
Donald Kyle Name of Inventor	Signature of Inventor)	
State of <u>Illinois</u>)	
County of Ruseau)	
appeared before me and said	have satisfactory evidence that Donald Kyle is the persor I person acknowledged that he signed this instrument and voluntary act for the uses and purposes mentioned i	t and
	Dated <u>0+0+3013</u>	[Se
	Signature of Notary Public MIDIMAMUNITY	OFFIGAL CRESSASS CAMISSION FX
	Printed Name	NIA SPA NIPE NIPE NIPE NIPE NIPE NIPE NIPE NIPE
	My appointment expires 03.19.3016	(Eg.

In Witness Whereof, I have, 2013.	executed this	<i>Norldwide</i>	Assignment of	on the	<u>ි</u> day o
Thai Lee Name of Inventor		Signatur	e of Inventor)	25	<u></u>
State of ರಿಜನ)				
County of POIK)				
I certify that I know or appeared before me and said acknowledged it to be his free instrument.	l person ackno	wledged th	at he signed	this inst	trument and
	Dated	4/3/	3		
	Signature of Notary Public	900	<u>, SMC</u>	anb	<u> </u>
	Printed Name	PEGG	<u>y s mcc</u>	<u>unec</u>	8
	My appointmen	it expires	9/9/	(*)	



In Witness Whereof, I have 2013.	executed this Worldwide Assignment on the 🙎 day of
Jon M. Massman Name of Inventor	Signature of Inventor)
State of <u>IA</u>	
County of Polk)
who appeared before me and	have satisfactory evidence that Jon M. Massman is the person said person acknowledged that he signed this instrument and and voluntary act for the uses and purposes mentioned in the
	Dated
	Signature of Notary Public
JAMIE ZORTMAN	Printed Name / Tamie Fortman
WA Columnation Exbras	My appointment expires <u>1/18/aa/5</u>

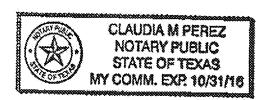
In Witness Whereof, I have, 2013.	executed this	Vorldwide	Assignment (on the $\hat{\mathbb{Z}}$	day of
Edwin J. Mendez Name of Inventor		<u>A</u> Signatur	re of Inventor)		
State of 1000)				
County of Polk)				
I certify that I know or he who appeared before me and acknowledged it to be his free instrument.	said person ack	nowledged at for the u	that he signe ses and purpo	d this instr oses mentio	rument and oned in the
	Signature of Notary Public	Person	sh 5 Me	Comba	
	Printed Name	PEZ	64 5 M	COMBE	>
	My appointmer	nt expires	4/5/1	3 9/9	<u> Major</u>
		ြို့ Commissi My Cor	GY S MCCOMSS on Number 7645 mmlasion Expires ember 09, 2013	9 4	

ATTORNEY DOCKET NUMBER: 5346P

in volness vonereor, I have executed this, 2013.	Worldwide Assignment on the <u>r</u> day of
Sally A. Santiago-Parton Name of Inventor	Sally A. Sartings-Parton Signature of Inventor)
State of <u>Texas</u>)	
County of <u>Bekar</u>)	

I certify that I know or have satisfactory evidence that Sally A. Santiago-Parton is the person who appeared before me and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

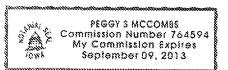
Dated	4-4.7	(01:3)	****
Signature of Notary Public	Olaw	dia · Lleux	
	Claudia	M. Perez	
My appointmen	.	10-31-2016	



In Witness Whereof, I have	executed this Worldwide Assignment on the 10 day	/ of
Joshua M. Shendelman Name of Inventor	Signature of Inventor)	
State of)	
person who appeared before me	have satisfactory evidence that Joshua M. Shendelman is e and said person acknowledged that he signed this instrur free and voluntary act for the uses and purposes mentione	nent
	Dated4 /10/13	
	Signature of Notary Public Peggs S McComba	
	Printed Name PEGGY S MCCOMBS	
	My appointment expires <u>역 / 역 / / 3</u>	
	PEGGY 5 MCCOM85 PEGGY 5 MCCOM85 Commission Number 764594 My Commission Expires Sectember 09, 2013	

In Witness Whereof, I have a	executed this Worldwide Assignment on the <u></u> day of
Jordan D. Spear Name of Inventor	Signature of Inventor)
State of <u>TOUX</u>)
County of Polk)
appeared before me and said	ve satisfactory evidence that Jordan D. Spear is the person who is person acknowledged that he signed this instrument and and voluntary act for the uses and purposes mentioned in the
	Dated
JAMIE ZORTMAN Commission Number 771247 My Continuesion Expires	Signature of Notary Public Anni 10 Tary Trans
	Printed Name Tomic Tortman
	My appointment expires \(\frac{1\pi}{2015}\)

In Witness Whereof, I have e	executed this	Vorldwide	Assignment	on the	<u> </u>	day	of
John B. Woodward Name of Inventor		<u>(</u> Signatyi	e of Inventor	<u> </u>			
State of 1000)						
County of Poik)						
I certify that I know or hawho appeared before me and sacknowledged it to be his free a instrument.	aid person ack	nowledged	that he sign	ned this i	nstrum	ent a	nd
	Dated	4/3/13	<u>></u>				
	Signature of Notary Public	Pa	%4 5 (<u>ncom</u>	<u>ba</u>	trining	
	Printed Name				<u>85</u>		
	My appointmer	nt expires_	9/9	<u>/13</u>			



executed this Worldwide Assignment on the Ltt day of
Signature of Inventor)
)-
eve satisfactory evidence that Yanwen Xiong is the person who person acknowledged that he signed this instrument and and voluntary act for the uses and purposes mentioned in the
Dated <u>April II ; 3013</u>
Signature of Notary Public Annie Tommer Printed Name Jamie Tomman My appointment expires 1/18/2015