506794195 07/30/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6841014

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NICHOLAS ADAM CROWLEY	06/10/2021
CHARLES THOMAS CUNNYNGHAM	06/15/2021
THOMAS RUSSELL HENRY	06/10/2021
RANDALL NEWTON HOLLEY	06/14/2021
JILL RENEE LENNON	06/17/2021
LINDSAY MARIE SPANGLER	06/22/2021
JENNIFER ANN STEINKE	06/16/2021
ADAM KYLE THURSTON	06/21/2021

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17377489

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

Email: IPSUPPORT@CORTEVA.COM

Correspondent Name: PIONEER HI-BRED INTERNATIONAL, INC.

Address Line 1: 7250 NW 62ND AVENUE

Address Line 2: PO BOX 552

Address Line 4: JOHNSTON, IOWA 50131-0552

ATTORNEY DOCKET NUMBER:	8686-US-NP
NAME OF SUBMITTER:	LYNDA FITZPATRICK

506794195 REEL: 057034 FRAME: 0714

SIGNATURE:	/lmfitzpatrick/	
DATE SIGNED:	07/30/2021	
Total Attachments: 8		
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	WORLDWIDE ASSIGNMENT		
I, the undersigned NICHOLAS ADAM CROWL	EY, hereby declare that I am an inve	entor of an invention entitled MAIZE	HYBRID
X15R405 the subject matter of which is describe		ey Docket No: <u>8686-US-NP</u>)	
declaration executed on $06-60$			
	tent Application Serial No.	, filed on	
PCT Application Serial No.	filed on		
which claim(s) its earliest priority to Application		, filed on	
		owledged, and in fulfillment of my pre-	existing
obligation of assignment to assignee, which is he			6.1
I. Sell, assign, and transfer unto PIONEER HI-BRI State of Iowa in the United States of America	and having its principal place of busing	n organized and existing under the law	s of the
Johnston, Iowa 50131-1014, herein referred to a	es the assignee, and to assignee's succ	essors and assigns	X 1014,
(A) the entire right, title, and interest in ar			priority
rights derived from such aforesaid application(s) for Patent by virtue of the Internation	inal Convention for the Protection of In	dustrial
Property ("International Convention") and any	other treaty or understanding for i	ntellectual property for any and all n	nember
countries of the International Convention or ot	her treaty or understanding, including	g rights in any and all provisional applic	cations.
(3) any and all of my inventions, whether join	t or sole, disclosed in such aforesaid	application(s) for Patent, and/or relate	d to or
arising out of such aforesaid application(s) for P	atent ("Inventions"), (4) any and all	applications for Patent for any such Inv	entions
in any country whatsoever, including all provision	onal, non-provisional, divisional, renev	val, substitute, continuation, continuat	ions-in-
part, international and convention applications	based in whole or in part upon such a	foresaid application(s) for Patent and/	or such
Inventions, (5) any and all patents for any such	Inventions in any country whatsoeve	er, including any and all reexams, reissu	ues and
extensions of any patent based in whole or in pa	art upon such aforesaid application(s)	for Letters Patent and/or such Invention	ns; (B)
the entire right to (1) file such applications in it	ts name or in my name, (2) file such	applications under the aforesaid Intern	national
Convention or any other treaty or understanding	ng, (3) have said patents granted in its	s name or mine, the Commissioner of I	Patents
and Trademarks of the United States of America	and any counterpart in any other par	ent office being hereby authorized to i	ssue or
transfer all of said patents to said assignee in ac	cordance nerewith, and (4) enforce s	aid patents and to sue for and recover	profits
and damages for any and all infringements ther	eor, whether past, present or future,	to the full end of the term or terms for	which
said patents may be granted, as fully and entire assignment;	ny as the same would have been held	and enjoyed by the undersigned without	out this
II. Agree, whenever assignee asks, without furth	er compensation but at assignee's eyn	ense for actual and reasonable costs in	curred
(A) to communicate to said assignee, its suc	ccessors, assigns, and legal representa	atives any facts known to me respective	na such
Inventions or the rights described above, (B) to	testify in any legal proceeding respe	ecting such inventions or the rights de	scribed
above, the location of that testimony to be in th	e country in which I reside or in the ne	earest country in which such testimony	is legal
should my country of residence prohibit such tes	stimony, (C) to execute all applications	s, papers or instruments necessary or re	auired
by said assignee, its successors, assigns and le	gal representatives, to carry into eff	ect any of the provisions of this instr	ument,
including petitions, specifications, oaths, assign	nments, disclaimers, and lawful affic	lavits in form and substance which r	nay be
requested by said assignee and (D) generally			
representatives to obtain, maintain, defend and	enforce patent protection for such Inv	entions and/or secure title to such Inve	entions
with assignee;			
III. Represent, warrant and covenant that I have	the full right and lawful authority to r	nake this assignment, that such assigne	d right
s not pre-dated by any grant, license, or other rig			
V. Agree that my grants and obligations herein	shall also bind all of my heirs, execut	ors, administrators, legal representative	es, and
assigns; and	f aggigned is boroby, arouted the may	are the formula to Alata and a second	c
V. Agree that an authorized representative of	assignee is nereby granted the poly	wer to insert in this assignment any i	lurther
dentification which may be necessary or desiral office of any other country for recordation of	this Assignment including the now	or to incort on this assignment information	patent
regarding application number and filing date who		er to insert on this assignment infor	mation
n Witness Whereof, I have executed this World		nd by my hand and agree that this War	م امانینامام
Assignment shall be effective as of the earliest pr			iuwiue
as of the earliest bi	ionty date for the aloresald application	maj ioi Letters Patent.	
NICHOLAS ADAM CROWLEY	Nillok, A Conley	15-01-90	
Name of Inventor 1	Signature of Inventor		
Hame of HIVEHIOF I	Signature of inventor	Date	

PATENT **REEL: 057034 FRAME: 0716**

		WORLE	WIDE ASSIGNMEN	<u>IT</u>		
	signed <u>CHARLES THOMAS</u> e subject matter of which i				an invention entitled <u>MAIZE HY</u> No: <u>8686-US-NP</u>)	<u>BRID</u>
⊠ de	eclaration executed on	6-15-2021				
	Inited States Of America	Patent Applic	ation Serial No.	, 1	filed on	
	CT Application Serial No.		filed on			
	m(s) its earliest priority to	Application Serial No			, filed on .	
				y acknowledged,	and in fulfillment of my pre-exis	sting
obligation o	f assignment to assignee,	which is hereby acknow	wledged, I hereby:			
					d and existing under the laws o	
					00 NW 62 nd Avenue, P.O. Box 1	.014,
	owa 50131-1014, herein re					
					Patent ("Patent"), (2) any pri	
					ntion for the Protection of Indus	
					property for any and all mer	
					any and all provisional applicat i(s) for Patent, and/or related t	
	-	-			is for Patent for any such Invent	
_					ute, continuation, continuation	
-	_				pplication(s) for Patent and/or	
-		•			g any and all reexams, reissues	
extensions	of any patent based in wh	ole or in part upon su	ich aforesaid applicat	tion(s) for Letters	Patent and/or such Inventions	; (B)
the entire r	ight to (1) file such applic	ations in its name or	in my name, (2) file	such application	is under the aforesaid Internat	ional
Convention	or any other treaty or un	derstanding, (3) have	said patents grante	d in its name or	mine, the Commissioner of Pat	tents
					being hereby authorized to issu	
		_		•	s and to sue for and recover pr	
_					end of the term or terms for w	
		and entirely as the s	ame would have bee	n held and enjoy	red by the undersigned without	this
assignment;				-'	atural and researching costs include	
_	-	,	_		ctual and reasonable costs incu	
					facts known to me respecting Inventions or the rights descr	
					ntry in which such testimony is	
					r instruments necessary or requ	
					the provisions of this instrum	
•	•		•	•	orm and substance which ma	
		_			e, its successors, assigns, and	-
-	•		•	_	nd/or secure title to such Invent	-
with assigne	ee;					
III. Represe	nt, warrant and covenant	that I have the full rig	ght and lawful author	rity to make this a	assignment, that such assigned	right
	ated by any grant, license,	•	- '		_	
-		ons herein shall also	bind all of my heirs,	executors, admir	istrators, legal representatives,	, and
assigns; and						
					sert in this assignment any fu	
	•	•			and Trademark Office or the pa	
	pplication number and filir	-	inment, including th	e power to inse	ert on this assignment informa	ition
			·		hand and arms above 187 and 4	
			-		hand and agree that this World	wide
Assignment	shall be effective as of the	earnest priority date	for the aforesaid appl	ication(s) for Let	ters Patent.	
CH.	ARLES THOMAS	. 11	ot 1	2	<i>a</i> a .	
CU	NNYNGHAM	Than	L'honas lun	machen	6-15-2021	
	me of Inventor 2	Signa	ture of Inventor	moster	6-15-2021 Date	

	WORLDWIE	<u>DE ASSIGNMEN</u>	<u>IT</u>		
I, the undersigned THOMAS RUSSELL HENRY, her	eby declare th	iat I am an inven	itor of an invention	on entitled MAIZ	E HYBRID X15R405
the subject matter of which is described in the app	plication for pa	atent (Attorney [)ocket No: <u>8686-</u>	<u>US-NP</u>)	
\boxtimes declaration executed on $Q//\delta$	21				
United States Of America Pate	nt Application	Serial No.	, fi	led on	
PCT Application Serial No.	İ	filed on			
which claim(s) its earliest priority to Application	Serial No.			, filed on	•
For valuable consideration, the receipt ar		f which is hereby	y acknowledged, a	and in fulfillmen	t of my pre-existing
obligation of assignment to assignee, which is here	eby acknowled	iged, I hereby:			-
I. Sell, assign, and transfer unto PIONEER HI-BRED	INTERNATION	NAL, INC., a corp	oration organized	and existing un	der the laws of the
State of Iowa in the United States of America an	nd having its p	rincipal place of	business at 7100	NW 62 nd Aven	ue, P.O. Box 1014,
Johnston, Iowa 50131-1014, herein referred to as	- 1				
(A) the entire right, title, and interest in and					
rights derived from such aforesaid application(s) f					
Property ("International Convention") and any	=	_			-
countries of the International Convention or othe	-	_			
(3) any and all of my inventions, whether joint					
arising out of such aforesaid application(s) for Pat					
in any country whatsoever, including all provision part, international and convention applications by					
Inventions, (5) any and all patents for any such I					
extensions of any patent based in whole or in par					
the entire right to (1) file such applications in its					
Convention or any other treaty or understanding		• • • •			
and Trademarks of the United States of America					
transfer all of said patents to said assignee in acc	i i				
and damages for any and all infringements there					
said patents may be granted, as fully and entirely	as the same	would have bee	n held and enjoye	ed by the under	signed without this
assignment;	·				
II. Agree, whenever assignee asks, without furthe	•	_			
(A) to communicate to said assignee, its succ					
Inventions or the rights described above, (B) to					
above, the location of that testimony to be in the					
should my country of residence prohibit such test					
by said assignee, its successors, assigns and leg					
including petitions, specifications, oaths, assigning requested by said assignee and (D) generally to					
representatives to obtain, maintain, defend and e					
with assignee;	inorce paterit	protection for s	acii iliveliciona ali	a, or secure tree	
III. Represent, warrant and covenant that I have t	the full right a	nd lawful author	ity to make this a	ssignment, that	such assigned right
is not pre-dated by any grant, license, or other rigi	_		•		
IV. Agree that my grants and obligations herein s				-	
assigns; and			·	. •	
V. Agree that an authorized representative of	assignee is h	ereby granted t	he power to inse	ert in this assig	nment any further
identification which may be necessary or desirab	le to comply v	vith the rules of	the U.S. Patent a	nd Trademark (Office or the patent
office of any other country for recordation of	this Assignme	nt, including th	e power to inser	rt on this assig	nment information
regarding application number and filing date when	n known.				
In Witness Whereof, I have executed this World	wide Assignm	ent on the date i	ndicated by my h	and and agree t	hat this Worldwide
Assignment shall be effective as of the earliest price	ority date for the	ne aforesaid appl	ication(s) for Lett	ers Patent.	
		-		1 1	
	1	//	' //	c/1/2/	a /

THOMAS RUSSELL HENRY

Name of Inventor 3

WORLDWIDE ASSIGNMENT

AAQUITDANDE YOURINEENI
l, the undersigned <u>RANDALL NEWTON HOLLEY</u> , hereby declare that I am an inventor of an invention entitled <u>MAIZE HYBR</u> I
X15R405 the subject matter of which is described in the application for patent (Attorney Docket No: <u>8686-US-NP</u>)
declaration executed on $A/A/AOA$
United States Of America Patent Application Serial No, filed on,
PCT Application Serial No. filed on
which claim(s) its earliest priority to Application Serial No.
For valuable consideration, the receipt and adequacy of which is hereby acknowledged, and in fulfillment of my pre-existing
obligation of assignment to assignee, which is hereby acknowledged, I hereby:
I. Sell, assign, and transfer unto PIONEER HI-BRED INTERNATIONAL, INC., a corporation organized and existing under the laws of th
State of Iowa in the United States of America and having its principal place of business at 71 <mark>00 NW</mark> 62 nd Avenue, P.O. Box 101
Johnston, Iowa 50131-1014, herein referred to as the assignee, and to assignee's successors and assigns,
(A) the entire right, title, and interest in and to: (1) the aforesaid application(s) for Letters Patent ("Patent"), (2) any priori
rights derived from such aforesaid application(s) for Patent by virtue of the International Convention for the Protection of Industri
Property ("International Convention") and any other treaty or understanding for intellectual property for any and all membe
countries of the International Convention or other treaty or understanding, including rights in any and all provisional application
(3) any and all of my inventions, whether joint or sole, disclosed in such aforesaid application(s) for Patent, and/or related to o
arising out of such aforesaid application(s) for Patent ("Inventions"), (4) any and all applications for Patent for any such Invention
in any country whatsoever, including all provisional, non-provisional, divisional, renewal, substitute, continuation, continuations-in
part, international and convention applications based in whole or in part upon such aforesaid application(s) for Patent and/or such techniques (F), and add all extents for any such togethers in any equation what covers including any and all experts existing any
Inventions, (5) any and all patents for any such Inventions in any country whatsoever, including any and all reexams, reissues an extensions of any patent based in whole or in part upon such aforesaid application(s) for Letters Patent and/or such Inventions; (I
the entire right to (1) file such applications in its name or in my name, (2) file such applications under the aforesaid internation
Convention or any other treaty or understanding, (3) have said patents granted in its name or mine, the Commissioner of Patent
and Trademarks of the United States of America and any counterpart in any other patent office being hereby authorized to issue of
transfer all of said patents to said assignee in accordance herewith, and (4) enforce said patents and to sue for and recover profit
and damages for any and all infringements thereof, whether past, present or future, to the full end of the term or terms for which
said patents may be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned without th
assignment;
II. Agree, whenever assignee asks, without further compensation but at assignee's expense for actual and reasonable costs incurred
(A) to communicate to said assignee, its successors, assigns, and legal representatives, any facts known to me respecting suc
Inventions or the rights described above, (B) to testify in any legal proceeding respecting such inventions or the rights describe
above, the location of that testimony to be in the country in which I reside or in the nearest country in which such testimony is legi
should my country of residence prohibit such testimony, (C) to execute all applications, papers or instruments necessary or require
by said assignee, its successors, assigns and legal representatives, to carry into effect any of the provisions of this instrumen
including petitions, specifications, oaths, assignments, disclaimers, and lawful affidavits in form and substance which may be
requested by said assignee and (D) generally to do everything possible to aid said assignee, its successors, assigns, and legi-
representatives to obtain, maintain, defend and enforce patent protection for such Inventions and/or secure title to such Invention
with assignee; III. Represent, warrant and covenant that I have the full right and lawful authority to make this assignment, that such assigned righ
is not pre-dated by any grant, license, or other right heretofore given by me to any party other than the assignee hereto;
IV. Agree that my grants and obligations herein shall also bind all of my heirs, executors, administrators, legal representatives, an
assigns; and
V. Agree that an authorized representative of assignee is hereby granted the power to insert in this assignment any furthe
dentification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office or the pater
office of any other country for recordation of this Assignment, including the power to insert on this assignment informatio
regarding application number and filing date when known.
in Witness Whereof, I have executed this Worldwide Assignment on the date indicated by my hand and agree that this Worldwid
Assignment shall be effective as of the earliest priority date for the aforesaid application(s) for Letters Patent.
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RANDALL NEWTON HOLLEY

Name of Inventor 4

WORLDWIDE ASSIGNMENT

		AACHEDIAIDE VORIGIAISIEIAI	
			n invention entitled MAIZE HYBRID X15R405 the
	matter of which is described in the appli	cation for patent (Attorney Docket II	lo: 8686-US-NP_)
		T C	Cl. J.
님		tent Application Serial No.	, filed on,
	PCT Application Serial No.	filed on	City I and
wnich	r claim(s) its earliest priority to Application		, filed on
ablicati	For valuable consideration, the receipt on of assignment to assignee, which is h		knowledged, and in fulfillment of my pre-existing
-			ion organized and existing under the laws of the
	· = ·	•	siness at 7100 NW 62 nd Avenue, P.O. Box 1014,
	on, Iowa 50131-1014, herein referred to		
			s) for Letters Patent ("Patent"), (2) any priority
rights d	lerived from such aforesaid application(s) for Patent by virtue of the Interna	ional Convention for the Protection of Industria
Propert	y ("International Convention") and any	other treaty or understanding fo	intellectual property for any and all member
			ng rights in any and all provisional applications,
			d application(s) for Patent, and/or related to or
			Il applications for Patent for any such Inventions
			ewal, substitute, continuation, continuations-in-
			n aforesaid application(s) for Patent and/or such ver, including any and all reexams, reissues and
			s) for Letters Patent and/or such Inventions; (B)
			n applications under the aforesaid Internationa
			its name or mine, the Commissioner of Patents
			patent office being hereby authorized to issue or
transfei	r all of said patents to said assignee in a	ccordance herewith, and (4) enforc	said patents and to sue for and recover profits
			e, to the full end of the term or terms for which
		ely as the same would have been he	ld and enjoyed by the undersigned without this
assignm			
			xpense for actual and reasonable costs incurred,
			ntatives, any facts known to me respecting such pecting such Inventions or the rights described
			nearest country in which such testimony is legal
			ons, papers or instruments necessary or required
			effect any of the provisions of this instrument,
			fidavits in form and substance which may be
			aid assignee, its successors, assigns, and legal
represe	ntatives to obtain, maintain, defend and	l enforce patent protection for such	inventions and/or secure title to such inventions
with ass	_		
			o make this assignment, that such assigned right
	re-dated by any grant, license, or other r		
assigns;		i shall also bind all of my heirs, exec	utors, administrators, legal representatives, and
		of assignee is hereby granted the i	power to insert in this assignment any further
identific	cation which may be necessary or desira	able to comply with the rules of the	U.S. Patent and Trademark Office or the patent
			ower to insert on this assignment information
	ng application number and filing date wh		•
In Witn	ess Whereof, I have executed this Worl	dwide Assignment on the date indic	ated by my hand and agree that this Worldwide
	nent shall be effective as of the earliest p		
-			
		11/ Bar Dans	- Color las
_	JILL RENEE LENNON	Signature of Inventor	<u> (11714)</u>
	Name of Inventor 5	S gnature of Inventor	Date

	WORLDWIDE ASSIGNMENT	
I, the undersigned <u>LINDSAY MARIE SPANGLER</u>), hereby declare that I am an inventor o	of an invention entitled MAIZE HYBRID X15R405
successive consister of which is destribed in the	2 application for patent (Attorney Docks	t No: 8686-US-NP
formy the state of	22/21	
United States Of America	Patent Application Serial No.	filed on
PCT Application Serial No.	filed on	***************************************
Enclosively consideration at a second control of the second contro	tion Serial No.	filed on
obligation of assignment to assignee, which is	or and adequacy of which is hereby ackr	lowledged, and in fulfillment of my pre-existing
the formation of analysis in the parameter of the first o	DESERT SCHOOMSENSED SHOLEDAY	
State of lowe in the United States of America	and having its dringing along of hard	m organized and existing under the laws of the ness at 7100 NW 62°d Avenue, P.O. Box 1014,
Johnston, Jowa 50131-1014, herein referred to	" "" the assistance and to assistance of total	ness at 7100 NVV b2" Avenue, P.O. Box 1014,
(A) the entire right, title, and interest in	and to: (1) the aforesaid application(s)	cosons and essigns, for Letters Patent ("Patent"), (2) any priority
Tigure national trotti zocii stotessio sbbitcstibu	(S) for Patent by virtue of the Internation	mai Convention for the Protection of industrial
Lichard Lineamendier Coursido 1 300 9	NV Other treaty or understanding for	intellectual property for any and all manches
- requireles of resiliensemenous: Couveutiou of a	other treaty or understanding, including	enciterilane lengisiyoza lik bak yak ai etilgir g
14) and any an or my magnitions, withingt lo-	int of sole, disclosed in such aforesaid	applications of for Satant and low related to he
arious par or secu arcustate abbitcatiou(z) tol.	Patent ("inventions"), (4) any and all	applications for Datast for any such including
and promised accordances including 30 bloom	Sional, non-provisional, divisional, renes	wal substitute continuation continuations in
Inventions (S) any and all patents for any ex-	is based in whole or in part upon such ;	aforesald application(s) for Patent and/or such
extensions of any patent based in whole or in	wo oversions it say country was some	er, including any and all reexams, reissues and for Letters Patent and/or such inventions; (8)
the entire right to (1) file such applications in	its name or in my name (2) file wish	applications under the aforesaid international
- convenient or any other riests or audelitisuic	ims, (3) have said patents granted in it	same or mine the Commissioner of Barens
and manginglys of the philed 219162 Of Willett	Ca and any counterpart in any other ha	tent office being becably mytharized to team an
mander on or som barantz to 29th 922/84/86 to	accordance herewith, and (4) enforces	ided natante and to sup for and cornups matter
- were normakes in such with 90 millinkkillette thi	ereor, whether past, present or future.	to the full and of the term or terms for which
said patents may be granted, as fully and enti- assignment;	rely as the same would have been held	and enjoyed by the undersigned without this
	since an amount of the second	en de regular de la companya de la c
Agree, whenever assignee asks, without furl (A) to communicate to said assignee its said.	the compensation but at assigned a exp	rense for actual and reasonable costs incurred, itives, any facts known to me respecting such
inventions or the rights described above, (B)	to testify in any least represents	rrives, any facts known to me respecting such
above, the location of that testimony to be in t	the country in which I reside or in the ou	servest requestry in which each testiment is lead
more in contras de taxionide bioudit zaun f	estimony, ICI to execute all applications	beginner or instruments paragonal or marined
nt sain assignae' its ancressors' seeighe suc	legal representatives, to carry into eff	ect any of the omvisions of this instrument
mercane beamons, specifications, paths, assi	gnments, disclaimers, and lawful affic	lavite in form and coherance subjets made him
isdosiso by said szzigues aud (n) geveleti/	/ to do everything possible to aid said	accioned its correspond assigns and land
representatives to obtain, maintain, defend an with assignee;	d enforce patent protection for such in	rentions and/or secure title to such inventions
	to the full right and land, I must be	
III. Represent, warrant and covenant that I have is not pre-dated by any grant, license, or other by	right beretofore given by me to any navi	make this assignment, that such assigned right
IV. Agree that my grants and obligations herei	n shall also bind all of my heirs, execut-	or administrators local representatives and
ຂອນເຂົາເອີ ຕາເຕ		
V. Agree that an authorized representative	of assignee is hereby granted the pov	wer to insert in this assignment any further
mending and which that he hecessely of desit	30le to comply with the rules of the U.	S. Patent and Tradamark Office Ac the nature
Aure of any order codurts for tecological	If this Assignment, including the now	er to insert on this assignment information
sakerous abbecance enuest and thits date Mi	ren knowo.	
In Witness Whereof, I have executed this Wor	ldwide Assignment on the date indicate	d by my hand and agree that this Worldwide
Assignment shall be affective as of the earliest p	mority date for the aforesaid application	(s) for Letters Patent.
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T PANYAN CAY A C CHAPPE CON A COMP CON-	_ Stroson More	
LINDSAY MARIE SPANGLER		27/N <u>V199/J</u> 1
Name of Inventor 6	Signature of Inventor	Date

WORLDWIDE ASSIGNMENT

WOULDANIDE ASSIGNMENT
, the undersigned IENNIFER ANN STEINKE, hereby declare that I am an inventor of an invention entitled MAIZE HYBRID X15R405 the
subject matter of which is described in the application for patent (Attorney Docket No: <u>8686-U5-NP</u>)
declaration executed on 1634 class class
United States Of America Patent Application Serial No, filed on,
PCT Application Serial No. filed on
which claim(s) its earliest priority to Application Serial No, filed on
For valuable consideration, the receipt and adequacy of which is hereby acknowledged, and in fulfillment of my pre-existing
obligation of assignment to assignee, which is hereby acknowledged, I hereby:
. Sell, assign, and transfer unto PIONEER HI-BRED INTERNATIONAL, INC., a corporation organized and existing under the laws of the state of lowa in the United States of America and having its principal place of business at 7100 NW 62 nd Avenue, P.O. Box 1014,
lohnston, Iowa 50131-1014, herein referred to as the assignee, and to assignee's successors and assigns,
(A) the entire right, title, and interest in and to: (1) the aforesaid application(s) for Letters Patent ("Patent"), (2) any priority rights derived from such aforesaid application(s) for Patent by virtue of the International Convention for the Protection of Industrial Property ("International Convention") and any other treaty or understanding for intellectual property for any and all member
countries of the International Convention or other treaty or understanding, including rights in any and all provisional applications,
(3) any and all of my inventions, whether joint or sole, disclosed in such aforesaid application(s) for Patent, and/or related to or
arising out of such aforesaid application(s) for Patent ("Inventions"), (4) any and all applications for Patent for any such inventions
n any country whatsoever, including all provisional, non-provisional, divisional, renewal, substitute, continuation, continuations-in-
part, international and convention applications based in whole or in part upon such aforesaid application(s) for Patent and/or such
nventions, (5) any and all patents for any such inventions in any country whatsoever, including any and all reexams, reissues and
extensions of any patent based in whole or in part upon such aforesaid application(s) for Letters Patent and/or such inventions; (B)
the entire right to (1) file such applications in its name or in my name, (2) file such applications under the aforesaid International Convention or any other treaty or understanding, (3) have said patents granted in its name or mine, the Commissioner of Patents
and Trademarks of the United States of America and any counterpart in any other patent office being hereby authorized to issue or
transfer all of said patents to said assignee in accordance herewith, and (4) enforce said patents and to sue for and recover profits
and damages for any and all infringements thereof, whether past, present or future, to the full end of the term or terms for which
said patents may be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned without this
essignment;
II. Agree, whenever assignee asks, without further compensation but at assignee's expense for actual and reasonable costs incurred,
(A) to communicate to said assignee, its successors, assigns, and legal representatives, any facts known to me respecting such
inventions or the rights described above, (B) to testify in any legal proceeding respecting such inventions or the rights described
above, the location of that testimony to be in the country in which I reside or in the nearest country in which such testimony is legal
should my country of residence prohibit such testimony, (C) to execute all applications, papers or instruments necessary or required
by said assignee, its successors, assigns and legal representatives, to carry into effect any of the provisions of this instrument,
including petitions, specifications, paths, assignments, disclaimers, and lawful affidavits in form and substance which may be requested by said assignee and (D) generally to do everything possible to aid said assignee, its successors, assigns, and legal
representatives to obtain, maintain, defend and enforce patent protection for such Inventions and/or secure title to such Inventions with assignee;
III. Represent, warrant and covenant that I have the full right and lawful authority to make this assignment, that such assigned right
is not pre-dated by any grant, license, or other right heretofore given by me to any party other than the assignee hereto;
IV. Agree that my grants and obligations herein shall also bind all of my heirs, executors, administrators, legal representatives, and assigns; and
V. Agree that an authorized representative of assignee is hereby granted 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, including the power to insert on this assignment information
regarding application number and filing date when known.
In Witness Whereof, I have executed this Worldwide Assignment on the date indicated by my hand and agree that this Worldwide
Assignment shall be effective as of the earliest priority date for the aforesaid application(s) for Letters Patent.
JENNIFER ANN STEINKE JULY JULY 16 JULY 2002/
Name of Inventor 7 Shington of White

	WORLDWIDE ASSIGNMENT		
I, the undersigned ADAM KYLE THURSTON,			<u>15R405</u>
the subject matter of which is described in th		et No: <u>8686-US-NP</u>)	
<u> </u>	21/2 [
	Patent Application Serial No	, filed on	_,
PCT Application Serial No.	filed on		
which claim(s) its earliest priority to Applica		, filed on	'
		knowledged, and in fulfillment of my pre-	existing
obligation of assignment to assignee, which is	-	ing name of a state of	
I. Sell, assign, and transfer unto PIONEER HI-E State of Iowa in the United States of Americ			
Johnston, Iowa 50131-1014, herein referred t			X 1014,
(A) the entire right, title, and interest in			priority
rights derived from such aforesaid application			
Property ("International Convention") and a			
countries of the International Convention or			
(3) any and all of my inventions, whether jo	oint or sole, disclosed in such aforesaid	dapplication(s) for Patent, and/or relate	d to or
arising out of such aforesaid application(s) for			
in any country whatsoever, including all prov			
part, international and convention application			
Inventions, (5) any and all patents for any su			
extensions of any patent based in whole or in			
the entire right to (1) file such applications in Convention or any other treaty or understan			
and Trademarks of the United States of Amer			
transfer all of said patents to said assignee in			
and damages for any and all infringements th			
said patents may be granted, as fully and ent			
assignment;			
II. Agree, whenever assignee asks, without fu			
(A) to communicate to said assignee, its			
Inventions or the rights described above, (B)			
above, the location of that testimony to be in			
should my country of residence prohibit such by said assignee, its successors, assigns and			
including petitions, specifications, oaths, ass			
requested by said assignee and (D) general			
representatives to obtain, maintain, defend a			_
with assignee;	, ,	·	
III. Represent, warrant and covenant that I ha	ave the full right and lawful authority to	make this assignment, that such assigne	d right
is not pre-dated by any grant, license, or othe			
IV. Agree that my grants and obligations here	ein shall also bind all of my heirs, execu	ıtors, administrators, legal representative	es, and
assigns; and			
V. Agree that an authorized representative			
identification which may be necessary or designation			
office of any other country for recordation regarding application number and filing date v		wer to insert on this assignment infor	nation
In Witness Whereof, I have executed this Wo		stad by my hand and acres that this Was	.1
			idwide
Assignment shall be effective as of the earliest	priority date for the atoresaid applicant	m(s) for Letters Patent.	
	0. 01	and the second s	
ADAM KYLE THURSTON	()	36 6/21/21	
	Signature of Love the		
Name of Inventor 8	Signature of Inventor	Date	

PATENT REEL: 057034 FRAME: 0723

RECORDED: 07/30/2021