504979399 06/27/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5026145

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOSEPH D. ANDERSON	02/22/2018
NICHOLAS ADAM CROWLEY	03/01/2018
CHARLES THOMAS CUNNYNGHAM	02/19/2018
MARK JACOB GADLAGE	02/20/2018
THOMAS RUSSELL HENRY	02/20/2018
RANDALL NEWTON HOLLEY	02/24/2018
DANIEL JOSEPH POHL	03/05/2018
JENNIFER ANN STEINKE	02/26/2018

RECEIVING PARTY DATA

Name:	PIONEER HI-BRED INTERNATIONAL, INC.
Street Address:	7100 N.W. 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:	15924708

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@PIONEER.COM

PIONEER HI-BRED INTERNATIONAL, INC. Correspondent Name:

Address Line 1: 7250 N.W. 62ND AVENUE

Address Line 2: P.O. BOX 552

Address Line 4: JOHNSTON, IOWA 50131-0552

ATTORNEY DOCKET NUMBER:	7661-US-NP
NAME OF SUBMITTER:	LYNDA M. FITZPATRICK

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dAssignments#page7.tif
dAssignments#page8.tif

I, the undersign subject matter	ned <u>JOSEPH D ANDERSON</u> of which is described in the), hereby declare that I am an invented he application for patent (Attorney	ntor of an invention Docket No: 7661	on entitled <u>(</u> -US-NP)	MAIZE HYBRID X15M017 the
	aration executed on	•			
⊠ Uni	ted States Of America	Patent Application Serial No.	15/924708	, filed on	MARCH 19, 2018
□ PCT	Application Serial No.	filed on		_	
which claim	s) its earliest priority to Ap			, filed	on .
For va	luable consideration, the	receipt and adequacy of which is h	ereby acknowledg	ed, and in f	ulfillment of my pre-existing
obligation of a	ssignment to assignee, wh	ich is hereby acknowledged, I here	by:		· · ·
I. Sell, assign,	and transfer unto PIONEER	R HI-BRED INTERNATIONAL, INC., a	corporation organ	nized and ex	isting under the laws of the
State of lowa	in the United States of Ar	merica and having its principal pla	ce of business at	7100 NW 6	2 nd Avenue, P.O. Box 1014,
Johnston, low	i 50131-1014, herein refer	red to as the assignee, and to assig	nee's successors a	ind assigns,	
A) the er	tire right, title, and intere	est in and to: (1) the aforesaid app	lication(s) for Let	ters Patent	("Patent"), (2) any priority
Irginis derived Property (*Int	rrom such aforesald applic	cation(s) for Patent by virtue of the	International Cor	vention for	the Protection of Industrial
countries of the	e International Convention	and any other treaty or understan	naing for intellect	ual propert	ly for any and all member
(3) any and a	l of my inventions what	on or other treaty or understanding ner joint or sole, disclosed in such	g, including rights	in any and	all provisional applications,
arising out of	uch aforesaid application(s) for Patent ("Inventions"), (4) a	aroresare applicat	tion(s) for F	atent, and/or related to or
in any country	whatsoever, including all	provisional, non-provisional, divisional	ny and an applicat	uons for Pai setituto, con	tent for any such inventions
part, internation	onal and convention applic	cations based in whole or in part u	non such aforesai	d anniicatio	initiation, continuations-in- in(s) for Patent and/or such
Inventions, (5)	any and all patents for a	ny such Inventions in any country	whatsoever, inclu	ding any an	id all reexams, reissues and
extensions of a	ny patent based in whole	or in part upon such aforesaid app	lication(s) for Let	ters Patent	and/or such inventions: (B)
the entire righ	t to (1) file such application	ons in its name or in my name, (2)) file such applicat	tions under	the aforesaid International
Convention or	any other treaty or under	rstanding, (3) have said patents gra	anted in its name	or mine, th	e Commissioner of Patents
and Trademarl	s of the United States of A	America and any counterpart in an	y other patent off	ice being he	ereby authorized to issue or
transfer all of	aid patents to said assign	ee in accordance herewith, and (4) enforce said pat	ents and to	sue for and recover profits
and damages 1	or any and all infringemer	nts thereof, whether past, present	or future, to the	full end of t	he term or terms for which
	ay be granted, as fully and	d entirely as the same would have	been held and er	ijoyed by th	e undersigned without this
assignment;		and Complete and an arrangement of the Arrangement			
II. Agree, When	never assignee asks, witho	ut further compensation but at ass	ignee's expense to	or actual and	reasonable costs incurred,
nventions or i	he rights described above	e, its successors, assigns, and legal e, (B) to testify in any legal proces	representatives, a	iny racts kn	own to me respecting such
above, the loca	ation of that testimony to	be in the country in which I reside	or in the nearest o	cuntoria w	ons or the rights described
should my cou	ntry of residence prohibit	such testimony, (C) to execute all a	innlications, name	rs or instrun	nents necessarı or required
by said assign	e. Its successors, assigns	and legal representatives, to car	ry into effect any	of the pro	visions of this instrument
including petit	ions, specifications, oath:	s, assignments, disclaimers, and I	awful affidavits i	n form and	substance which may be
requested by	said assignee and (D) ger	nerally to do everything possible	to aid said assig	nee, its suc	cessors, assigns, and legal
representative	s to obtain, maintain, defe	end and enforce patent protection	for such Invention	s and/or sec	cure title to such inventions
with assignee;					
III. Represent,	warrant and covenant tha	it I have the full right and lawful au	thority to make th	ris assignme	ent, that such assigned right
is not pre-date	d by any grant, license, or	other right heretofore given by me	to any party othe	r than the a	ssignee hereto;
	my grants and obligations	s herein shall also bind all of my he	eirs, executors, add	ministrators	, legal representatives, and
assigns; and	on sutherland represent	tative of acciones is beauty supply			
v. Agree ula identification v	which may be necessary or	tative of assignee is hereby grant r desirable to comply with the rule	ed the power to	insert in tr	is assignment any further
office of any	other country for record:	ation of this Assignment, including	s of the nower to i	ncort on th	emark Omce or the patent
	cation number and filing d		g the power to i	iiseit Oit ti	us assignment information
	_	s Worldwide Assignment on the da	ete indicated by m	w hand and	l saroo that this Worldwide
		rliest priority date for the aforesaid			
		A	application(3) for	Letters rat	E116.
JOSEPH	D ANDERSON	Honde in	· ·	227.	1-2018
	of Inventor 1	Signature of Inventor		Date	<u></u>
***************************************				Date	
		V			

PATENT

<u>WORLDWIDE ASSIGNMENT</u>
I, the undersigned <u>NICHOLAS ADAM CROWLEY</u> , hereby declare that I am an inventor of an invention entitled <u>MAIZE HYBRID</u>
X15M017 the subject matter of which is described in the application for patent (Attorney Docket No: 7661-US-NP)
declaration executed on
United States Of America Patent Application Serial No. 15/924708 , filed on MARCH 19, 2018 ,
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:
I. 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,
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 priority
rights derived from such aforesald 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
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
Inventions, (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
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 such
(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, 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 legal
representatives to obtain, maintain, defend and enforce patent protection for such inventions and/or secure title to such inventions
with assignee;
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
vissièmient sman de extecutae as or me carmost briorità date for me arotesara abbiteaments) for perma i arotte
NICHOLAS ADAM CROWLEY NICHOLAS ADAM CROWLEY NICHOLAS ADAM CROWLEY NICHOLAS ADAM CROWLEY
Nome of Inventor 2 Signature of Inventor Date

		CUNNYNGHAM, hereby declare t			
	•	described in the application for	Jatent (Attorney Doci	(et No: <u>766</u>	1-U5-NP)
_	laration executed on				
=	ited States Of America	Patent Application Serial N		_, filed on _	MARCH 19, 2018.
_	「Application Serial No	filed or			
	(s) its earliest priority to A			, filed o	
		receipt and adequacy of which i		ed, and in fu	Ifillment of my pre-existing
-	_	hich is hereby acknowledged, I he	•		ene en
		R HI-BRED INTERNATIONAL, INC.			
		America and having its principal			?"" Avenue, P.O. Box 1014,
-		rred to as the assignee, and to as	-		180-4
		rest in and to: (1) the aforesaid			
_	• • •	ication(s) for Patent by virtue of			
		and any other treaty or under	-		
		on or other treaty or understan			
	•	ther joint or sole, disclosed in su	• •		
-		n(s) for Patent ("Inventions"), (4			
		ll provisional, non-provisional, di lications based in whole or in pa			
-		any such inventions in any coun	•		
	- ·	e or in part upon such aforesaid	•		
		cions in its name or in my name,			
_		erstanding, (3) have said patents			
		America and any counterpart in			
		nee in accordance herewith, and			
		ents thereof, whether past, pres			
_	-	nd entirely as the same would h			
assignment;	noy be granted, as rany a	nd chinely as the same would in	ive seem meia ama em	hoken nk cu	e unacisignea without tins
	enever assignee asks, with	out further compensation but at	assignee's eynense fo	r actual and	I reasonable costs incurred
		ee, its successors, assigns, and le			
		ve, (B) to testify in any legal pro	-	-	
		be in the country in which I resi			_
		t such testimony, (C) to execute		•	
		ns and legal representatives, to			
		hs, assignments, disclaimers, ar			
		enerally to do everything possi			
		fend and enforce patent protecti			
with assignee					
_		nat I have the full right and lawfu	authority to make th	nis assignme	nt, that such assigned right
		r other right heretofore given by			
		ns herein shall also bind all of m			
assigns; and				·	
V. Agree th	at an authorized represer	ntative of assignee is hereby gr	anted the power to	insert in th	nis assignment any further
identification	which may be necessary of	or desirable to comply with the	ules of the U.S. Pate	nt and Trad	emark Office or the patent
		dation of this Assignment, inclu	ding the power to i	nsert on th	is assignment information
regarding app	plication number and filing	date when known.			
In Witness W	hereof, I have executed th	his Worldwide Assignment on th	e date indicated by n	ny hand and	agree that this Worldwide
Assignment s	hall be effective as of the e	arliest priority date for the afores	aid application(s) for	Letters Pater	nt.
_			11		
СНА	RLES THOMAS	Plan	1.		
CUN	NYNGHAM	6 Karles Kon	an unayu show	m <u>2-</u>	19-18
Nam	e of Inventor 3	Signature of Invent	or T	Date	

	WORLDWIDE ASSIGN			
I, the undersigned MARK JACOB GADLAGE, I	nereby declare that I am an ir	ventor of an inv	ention entitle	ed MAIZE HYBRID X15M017
the subject matter of which is described in the declaration executed on	application for patent (Attor	ney Docket No: 1	/661-US-NP	ט
	Patent Application Social No.	15/02/709	۔۔ ادمانک	MADOII 10 2010
PCT Application Serial No.	Patent Application Serial No.	15/924/08	, filed on	MARCH 19, 2018
which claim(s) its earliest priority to Applica	filed on		£11	•
For valuable consideration, the recei			, filed	on
obligation of assignment to assignee, which is	pronu auequacy of which is no hereby acknowledged. Therei	ereby acknowled hv:	zea, and in ti	alfillment of my pre-existing
I. Sell, assign, and transfer unto PIONEER HI-E	RED INTERNATIONAL INC. a	uy. Cornoration orga	nized and ov	icting under the lower of the
State of Iowa in the United States of Americ	a and having its principal place	corporation orga re of husiness at	7100 NW 6	isting under the laws of the
Johnston, Iowa 50131-1014, herein referred to	o as the assignee, and to assig	nee's successors	and assigns.	. Avende, F.O. DOX 1014,
(A) the entire right, title, and interest in	and to: (1) the aforesaid app	lication(s) for Le	tters Patent	("Patent") (2) any priority
rights derived from such aforesaid application	(s) for Patent by virtue of the	International Co	nvention for	the Protection of Industrial
Property ("International Convention") and a	my other treaty or understar	nding for intelled	tual propert	v for any and all member
countries of the International Convention or	other treaty or understanding	g, including rights	s in any and	all provisional applications.
(3) any and all of my inventions, whether jo	oint or sole, disclosed in such	aforesaid applica	ation(s) for P	atent, and/or related to or
arising out of such aforesaid application(s) for	Patent ("Inventions"), (4) a	ny and all applica	itions for Pat	ent for any such Inventions
in any country whatsoever, including all provi	isional, non-provisional, divisio	onal, renewal, su	bstitute, con	tinuation, continuations-in-
part, international and convention application	ns based in whole or in part u	pon such aforesa	id applicatio	n(s) for Patent and/or such
Inventions, (5) any and all patents for any su	ich Inventions in any country	whatsoever, incl	uding any an	d all reexams, reissues and
extensions of any patent based in whole or in	part upon such aforesaid app	lication(s) for Let	iters Patent a	and/or such inventions; (8)
the entire right to (1) file such applications in	its name or in my name, (2)	file such applica	itions under	the aforesaid International
Convention or any other treaty or understand	ding, (3) have said patents gra	anted in its name	or mine, th	e Commissioner of Patents
and Trademarks of the United States of Amer	ica and any counterpart in any	y other patent of	rice being he	reby authorized to issue or
transfer all of said patents to said assignee in and damages for any and all infringements the	accordance nerewith, and (4) entorce salo pa	tents and to	sue for and recover profits
said patents may be granted, as fully and ent	irely as the same would have	been held and a	run end or ti	ne term or terms for which
assignment;	nery as the same would mave	been new and e	njoyea by tn	e undersigned without this
II. Agree, whenever assignee asks, without fur	ther compensation but at assi	gnoo's evnence f	or actual and	reasonable sects incurred
(A) to communicate to said assignee, its	successors, assigns, and legal	renresentatives	any facts kn	own to me reconcting such
Inventions or the rights described above, (B)	to testify in any legal proces	ding respecting	such Inventio	ons 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 w	hich such testimony is legal
should my country of residence prohibit such	testimony, (C) to execute all a	pplications, pape	rs or instrum	ents necessary or required
by said assignee, its successors, assigns and	legal representatives, to car	ry into effect an	y of the pro	visions of this instrument,
including petitions, specifications, oaths, ass	signments, disclaimers, and l	awful affidavits	in form and	substance which may be
requested by said assignee and (D) general	ly to do everything possible	to aid said assig	gnee, its suc	cessors, assigns, and legal
representatives to obtain, maintain, defend ar	nd enforce patent protection f	or such Invention	ns and/or sec	cure title to such Inventions
with assignee;				
III. Represent, warrant and covenant that I ha	ve the full right and lawful au	thority to make t	his assignme	nt, that such assigned right
is not pre-dated by any grant, license, or other	right heretofore given by me	to any party other	er than the as	ssignee hereto;
IV. Agree that my grants and obligations here	ain shall also bind all of my he	irs, executors, ad	ministrators,	, legal representatives, and
assigns; and	of posioner is bounded	44		
V. Agree that an authorized representative	or assignee is nereby grant	ed the power to	insert in th	is assignment any further
identification which may be necessary or desi office of any other country for recordation	of this Assignment including	s of the power to	income on the	emark Office or the patent
regarding application number and filing date w	vhen known	g tile power to	insert on th	is assignment information
In Witness Whereof, I have executed this Wo		ote indicated by	mu hand and	agrees that this Wardwide
Assignment shall be effective as of the earliest	priority date for the aforesaid:	annlication(s) for	Letters Pater	agree mat mis wongwige
	priority date to: the diorestite.	application(s) for	Lottors I ater	16.
		1.	11.	1
MARK JACOB GADLAGE	WWYSHIA		האל	W/2018
Name of Inventor 4	Signature of inventor	()	Date	-10-14
	_	~		

PATENT

	MONTDANIDE W22IGIA			
I, the undersigned THOMAS RUSSELL HENRY, hereb	y declare that I am an i	nventor of an invent	ion entitled <u>MAIZE HYBRID X15M</u>	017
the subject matter of which is described in the appli	cation for patent (Attor	ney Docket No: <u>766</u>	1-US-NP)	
declaration executed on				
—	Application Serial No.	15/924708	filed on $\underline{MARCH 19, 2018}$,	
PCT Application Serial No.	filed on			
which claim(s) its earliest priority to Application Se		·	, filed on	
For valuable consideration, the receipt and	adequacy of which is h	ereby acknowledged	, and in fulfillment of my pre-exis	ting
obligation of assignment to assignee, which is hereby				
I. Sell, assign, and transfer unto PIONEER HI-BRED IN	ITERNATIONAL, INC., a	corporation organize	ed and existing under the laws of	the
State of lowa in the United States of America and	naving its principal pla	ce of business at 71	60 NW 62 [™] Avenue, P.O. Box 10)14,
Johnston, Iowa 50131-1014, herein referred to as th	e assignee, and to assig	nee's successors and	assigns,	
(A) the entire right, title, and interest in and to rights derived from such aforesaid application(s) for); (1) the aforesaid app	dication(s) for Letter	s Patent ("Patent"), (2) any prio	rity
Property ("International Convention") and any oth	ratent by virtue of the	: international Conve oding for intellectus	nuon for the Protection of Indust	triai
countries of the International Convention or other	treaty or understandin	g including rights in	in property for any and all mem	.ber
(3) any and all of my inventions, whether joint or	sole, disclosed in such	aforesaid application	n/s) for Patent, and/or related to	JII3,
arising out of such aforesaid application(s) for Paten	t ("Inventions"). (4) a	ny and all application	ns for Patent for any such Inventi	one
n any country whatsoever, including all provisional,	, non-provisional, divisi	onal, renewal, substi	tute. continuation. continuations	i-in-
part, international and convention applications base	ed in whole or in part u	pon such aforesaid a	application(s) for Patent and/or s	uch
inventions, (5) any and all patents for any such inv	entions in any country	whatsoever, includir	ng any and all reexams, reissues	and
extensions of any patent based in whole or in part u	ipon such aforesald app	olication(s) for Letter	s Patent and/or such Inventions;	(B)
the entire right to (1) file such applications in its na	ame or in my name, (2) file such application	ns under the aforesaid Internation	onal
Convention or any other treaty or understanding, (3	 have said patents gr 	anted in its name or	mine, the Commissioner of Pate	ents
and Trademarks of the United States of America and	I any counterpart in an	y other patent office	being hereby authorized to issue	e or
transfer all of said patents to said assignee in accord	Jance herewith, and (4) enforce said paten	ts and to sue for and recover pro	ifits
and damages for any and all infringements thereof,	whether past, present	or future, to the full	end of the term or terms for wh	nich
said patents may be granted, as fully and entirely as assignment;	s the same would have	been neid and enjo	yed by the undersigned without	this
i. Agree, whenever assignee asks, without further o	amneneation but at acc	ianga's evnence for s	otual and reasonable costs in sum	
(A) to communicate to said assignee, its succes	sors assigns and legal	renresentatives and	r facts known to me respecting s	ea,
nventions or the rights described above, (B) to tes	tify in any legal proce	eding respecting sucl	h inventions or the rights descri	hed
above, the location of that testimony to be in the co	untry in which I reside	or in the nearest cou	intry in which such testimony is le	egal
should my country of residence prohibit such testim	ony, (C) to execute all a	applications, papers o	or instruments necessary or requi	ired
by said assignee, its successors, assigns and legal	representatives, to car	ry into effect any o	f the provisions of this instrume	ent,
ncluding petitions, specifications, oaths, assignme	nts, disclaimers, and I	lawful affidavits in f	form and substance which may	be
requested by said assignee and (D) generally to o	lo everything possible	to aid said assigned	e, its successors, assigns, and le	egal
representatives to obtain, maintain, defend and enfo	orce patent protection	for such Inventions a	ind/or secure title to such Inventi	ons
with assignee;				
II. Represent, warrant and covenant that I have the	: full right and lawful au	thority to make this	assignment, that such assigned ri	ght
s not pre-dated by any grant, license, or other right I	neretorore given by me	to any party other ti	han the assignee hereto;	
 V. Agree that my grants and obligations herein sha assigns; and 	ii also binu ali bi my ne	eirs, executors, aomii	nistrators, legal representatives,	and
 Agree that an authorized representative of as 	cianoe is horohy arani	ad the nower to in	sort in this assignment any first	.
dentification which may be necessary or desirable t	to comply with the rule	es of the U.S. Patent	and Trademark Office or the nat	ner
office of any other country for recordation of thi	s Assignment, includir	g the power to ins	ert on this assignment informat	ion
regarding application number and filing date when k	nown.	g and period to the	and the cooleanness who make	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
In Witness Whereof, I have executed this Worldwid	le Assignment on the d	late indicated by my	hand and agree that this Worldw	vide
Assignment shall be effective as of the earliest priorit	y date for the aforesaid	application(s) for Le	tters Patent.	1440
	-			
	XI A	0117	0/0/10	
THOMAS RUSSELL HENRY	Thomas Rus. Signature of Inventor	2011/9/19	2/20/18	
Name of Inventor 5	Signature of Inventor		Date	

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i, the undersigned RANDALL NEWTON H	IOLLEY, hereby declare that I	am an inventor of an inver	ntion entitled MAIZE HYBRID
X15M017 the subject matter of which is de	scribed in the application for pa	tent (Attorney Docket No: 1	00T-02-IAL 1
declaration executed on	Danas A anti-ati-a Carlot No.	15/02/4700 filed a	MADCH 10 2019
United States Of America	Patent Application Serial No.	15/924/08 , filed or	MARCH 19, 2018
PCT Application Serial No.	filed on	- Cla	
which claim(s) its earliest priority to Appli		, file	
For valuable consideration, the reconstitution of assignment to assignee, which			iumment of my pre-existing
obligation of assignment to assignee, which I. Sell, assign, and transfer unto PIONEER H			evisting under the laws of the
State of Iowa in the United States of Ame			
Johnston, Iowa 50131-1014, herein referred			
(A) the entire right, title, and interest			
rights derived from such aforesaid applicati			
Property ("International Convention") and			
countries of the International Convention			
(3) any and all of my inventions, whether	· joint or sole, disclosed in such	ı aforesaid application(s) for	Patent, and/or related to or
arising out of such aforesald application(s)			
in any country whatsoever, including all pr			
part, international and convention applicat			
Inventions, (5) any and all patents for any			
extensions of any patent based in whole or			
the entire right to (1) file such applications			
Convention or any other treaty or underst and Trademarks of the United States of Am	·		
transfer all of said patents to said assignee			
and damages for any and all infringements			
said patents may be granted, as fully and e			
assignment;	•		
II. Agree, whenever assignee asks, without	further compensation but at as	signee's expense for actual a	nd reasonable costs incurred,
(A) to communicate to said assignee, i	its successors, assigns, and lega	i representatives, any facts i	known to me respecting such
Inventions or the rights described above, (
above, the location of that testimony to be			
should my country of residence prohibit su		• • •	
by said assignee, its successors, assigns a			
including petitions, specifications, oaths,	-		
requested by said assignee and (D) gene representatives to obtain, maintain, defend			
with assignee;	and emorce patent protection	ioi sucii iliveltuolis aliujoi s	secure title to such inventions
III. Represent, warrant and covenant that I	have the full right and lawful a	uthority to make this assignr	nent, that such assigned right
is not pre-dated by any grant, license, or ot			
IV. Agree that my grants and obligations h		• • •	
assigns; and			
V. Agree that an authorized representat	ive of assignee is hereby gran	ted the power to insert in	this assignment any further
identification which may be necessary or d			•
office of any other country for recordation		ng the power to insert on	this assignment information
regarding application number and filing dat			
In Witness Whereof, I have executed this			-
Assignment shall be effective as of the earli-	est priority date for the aforesaid	l application(s) for Letters Pa	tent.

Signature of Inventor

RANDALL NEWTON HOLLEY

Name of Inventor 6

PATENT

I the understand manner and	WORLDWIDE ASSIGN	MENT		
I, the undersigned <u>DANIEL JOSEPH POHL</u> , it subject matter of which is described in the	nereby declare that I am an inve	ntor of an inver	tion entitled <u>I</u>	MAIZE HYBRID X15M017 the
subject matter of which is described in the declaration executed on	application for patent (Attorney	Docket No: 766	51-US-NP)	
☑ United States Of America	Datomb Application Action			
PCT Application Serial No.	Patent Application Serial No.	15/924708	, filed on	MARCH 19, 2018
which claim(s) its earliest priority to Appli	filed on		·	
For valuable consideration, the rec	cation Serial (VO.		, filed	on
For valuable consideration, the recobligation of assignment to assignee, which				
i. Jeii, assign, and transfer unto PIONFFR Hi	-RRED INTERNATIONAL INC -			
State of Iowa in the United States of Amer Johnston, Iowa 50131-1014, herein referred	rica and having its principal place	re of husiness a	anized and ex	sting under the laws of the
try and arrest tibile, dille, dille little lest	III ADD ID' III the storocoid see	II 41 1 - 1 - C		"Patent"\ (2) any priority
Property ("International Convention") and countries of the International Convention of	any other treaty or understan	ding for intelle	ctual property	for any and all member
(3) any and all of my inventions, whether arising out of such aforesaid application(s) for	Joint or sole, disclosed in such	aforesaid applic	ation(s) for Pa	itent, and/or related to or
in any country whatsoever, including all pro part, international and convention application	ons based in whole or in most or	nal, renewal, su	ibstitute, cont	inuation, continuations-in-
part, international and convention application inventions, (5) any and all patents for any sextensions of any patent based in whole or	Such inventions in any country	on such afores	aid application	(s) for Patent and/or such
extensions of any patent based in whole or the entire right to (1) file such applications	in part upon such aforesaid appl	ication(s) for L	luding any and	all reexams, reissues and
Convention or any other treaty or understall and Trademarks of the United States of Ame	nding, (3) have said patents gra	nted in its nam	e or mine the	Commissioner of Detection
said patents may be granted, as fully and en assignment;	itirely as the same would have I	been held and ϵ	njoyed by the	undersigned without this
I. Agree, whenever assignee asks, without fu	successors assigns and leasing	mee's expense f	or actual and	reasonable costs incurred,
(A) to communicate to said assignee, its nventions or the rights described above, (Babove, the location of that testimony to be in				
epresentatives to obtain, maintain, defend a vith assignee;	ind enforce patent protection fo	r such Invention	ns and/or secu	re title to such inventions
II. Represent, warrant and covenant that I has not pre-dated by any grant, license, or other	ave the full right and lawful auth	ority to make t	his assignmen	t, that such assigned right
 V. Agree that my grants and obligations her ssigns; and 				
 Agree that an authorized representative dentification which may be necessary or des 	of assignee is hereby granter	d the nower to	income in abi-	
, reality to recordation	vi una essignment, inclima	the power to	insert on thic	assignment information
o approved the same and thing date t	WIICH KHOWH.			
n Witness Whereof, I have executed this Wo	orldwide Assignment on the date	e indicated by r	my hand and a	groothat this Westernia.
assignment shall be effective as of the earliest	priority date for the aforesaid an	plication(s) for	Letters Patent	Pro- mar mis Maliamids
			15 1 ateilt.	
DANKIN TOOMS	21170		0/-:	ı
DANIEL JOSEPH POHL	- 1747 7-147		<u>3/</u> 5/	18
Name of Inventor 7	Signature of Inventor		Data	***************************************

WORLDWIDE ASSIGNMENT					
I, the undersigned JENNIFER ANN STEINKE, hereby declare that I am an inventor of an invention entitled MAIZE HYBRID X15M017					
the subject matter of which is described in the application for patent (Attorney Docket No: <u>7661-US-NP</u>)					
declaration executed on					
United States Of America Patent Application Serial No. <u>15/924708</u> , filed on <u>MARCH 19, 2018</u> ,					
PCT Application Serial Nofiled 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:					
I. 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,					
Johnston, lowa 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					
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					
Inventions, (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					
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 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, 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 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.					
Assignment shart be effective as of the earnest priority and for the aforesaid application(s) for fectors i atom.					
TENDRICED AND STEINING (,)					
JENNIFER ANN STEINKE Junge 1. Denta 0/20/18					
Name of Inventor 8 Signature of Inventor Date					

PATENT REEL: 046212 FRAME: 0644

RECORDED: 06/27/2018