

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

| SUBMISSION TYPE:  | NEW ASSIGNMENT                      |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
|---|-------------------------------------|---------------|-------------------------------------|---------------------|---------------------|-------------------|----------------|----------------|------------|----------------|-------|--------------|------------|
| NATURE OF CONVEYANCE:   | ASSIGNMENT                          |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| CONVEYING PARTY DATA  |                                     |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Scott Diehn</td> <td>10/19/2011</td> </tr> <tr> <td>Carl R. Simmons</td> <td>10/20/2011</td> </tr> <tr> <td>Albert L. Lu</td> <td>10/20/2011</td> </tr> </tbody> </table>   |                                     | Name          | Execution Date                      | Scott Diehn         | 10/19/2011          | Carl R. Simmons   | 10/20/2011     | Albert L. Lu   | 10/20/2011 |                |       |              |            |
| Name  | Execution Date                      |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Scott Diehn   | 10/19/2011                          |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Carl R. Simmons   | 10/20/2011                          |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Albert L. Lu  | 10/20/2011                          |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| RECEIVING PARTY DATA  |                                     |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| <table border="1"> <tr> <td>Name:</td> <td>PIONEER HI-BRED INTERNATIONAL, INC.</td> </tr> <tr> <td>Street Address:</td> <td>7100 NW 62nd Avenue</td> </tr> <tr> <td>Internal Address:</td> <td>P. O. Box 1014</td> </tr> <tr> <td>City:</td> <td>Johnston</td> </tr> <tr> <td>State/Country:</td> <td>IOWA</td> </tr> <tr> <td>Postal Code:</td> <td>50131-1014</td> </tr> </table> |                                     | 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 |
| 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                          |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| <table border="1"> <tr> <td>Name:</td> <td>E.I. du PONT de NEMOURS and COMPANY</td> </tr> <tr> <td>Street Address:</td> <td>1007 Market Street</td> </tr> <tr> <td>City:</td> <td>Wilmington</td> </tr> <tr> <td>State/Country:</td> <td>DELAWARE</td> </tr> <tr> <td>Postal Code:</td> <td>19898</td> </tr> </table>   |                                     | Name:         | E.I. du PONT de NEMOURS and COMPANY | Street Address:     | 1007 Market Street  | City:             | Wilmington     | State/Country: | DELAWARE   | Postal Code:   | 19898 |              |            |
| Name:   | E.I. du PONT de NEMOURS and COMPANY |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Street Address:   | 1007 Market Street                  |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| City:   | Wilmington                          |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| State/Country:  | DELAWARE                            |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Postal Code:  | 19898                               |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| PROPERTY NUMBERS Total: 1   |                                     |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13329511</td> </tr> </tbody> </table>   |                                     | Property Type | Number                              | Application Number: | 13329511            |                   |                |                |            |                |       |              |            |
| Property Type   | Number                              |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Application Number:   | 13329511                            |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| CORRESPONDENCE DATA   |                                     |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Fax Number:   | (515)535-6883                       |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Phone:  | 515-535-5707                        |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Email:  | sue.smith@pioneer.com               |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>   |                                     |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |
| Correspondent Name:   | Kathryn Lappegard                   |               |                                     |                     |                     |                   |                |                |            |                |       |              |            |

CH \$40.00 13329511

Address Line 1: 7250 NW 62nd Avenue  
Address Line 2: P. O. Box 552  
Address Line 4: Johnston, IOWA 50131-0552

ATTORNEY DOCKET NUMBER: 3107

NAME OF SUBMITTER: Kathryn K. Lappegard

Total Attachments: 5  
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**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, Scott Diehn and Carl R. Simmons at PIONEER HI-BRED INTERNATIONAL, INC., 7100 NW 62<sup>nd</sup> Avenue, P.O. Box 1014, Johnston, Iowa 50131-1014, and Albert L. Lu at E.I. du PONT de NEMOURS and COMPANY, 1007 Market Street, Wilmington, Delaware 19898, the undersigned inventors have sold and assigned, and by these presents hereby sells and assigns, as indicated below, unto

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

OR

E.I. du PONT de NEMOURS and COMPANY  
1007 Market Street  
Wilmington, Delaware 19898

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 **"VIRAL PROMOTER, TRUNCATIONS THEREOF, 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. 13/329,511 filed 12/19/2011 and;
- PCT Serial No. US2011/65861 filed 12/19/2011,

which claims priority as of December 22, 2010 to Serial No. 61/425,884,

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 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 December 22, 2010.

In Witness Whereof, I have executed this Worldwide Assignment on the 19 day of October, 2011.

Scott Diehn  
(Inventor)

[Handwritten Signature]  
(Signature of Inventor)

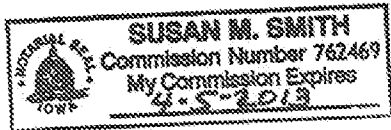
State of IOWA )

County of POLK )

I certify that I know or have satisfactory evidence that Scott Diehn 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 10/19/2011

Signature of Notary Public [Handwritten Signature]



Printed Name SUSAN M. SMITH

My appointment expires 4/5/2013

In Witness Whereof, I have executed this Worldwide Assignment on the 20 day of October, 2011.

Carl R. Simmons  
(Inventor)

[Handwritten Signature]  
(Signature of Inventor)

State of IOWA)

County of POLK)

I certify that I know or have satisfactory evidence that Carl R. Simmons 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 10/20/2011

Signature of Notary Public [Handwritten Signature]


Printed Name SUSAN M. SMITH

My appointment expires 4/6/2013



In Witness Whereof, I have executed this Worldwide Assignment on the 20 day of October, 2011.

Albert L. Lu  
(Inventor)

  
\_\_\_\_\_  
(Signature of Inventor)

State of Delaware )

County of New Castle )

I certify that I know or have satisfactory evidence that Albert L. Lu 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 October 20, 2011

Signature of Notary Public Carol A. Purse

Printed Name Carol A. Purse

My appointment expires Nov. 30, 2014

CAROL A. PURSE  
NOTARY PUBLIC  
STATE OF DELAWARE  
My commission expires Nov. 30, 2014