



# 2016 I-SPUD

## Innate Stewardship Program and Use Directions



### **INNATE® GROWER LICENSE AGREEMENT** **APPENDIX D**

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*Grower must abide by the terms and conditions of the I-SPUD, as it may be amended from time to time, and ensure their employees and representatives do the same.*

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<https://www.I-SPUD.com>

Simplot Plant Sciences

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## Innate® Stewardship Program and Use Directions (I-SPUD)

### GROWER

The J.R. Simplot Company (Simplot) is committed to the responsible management of INNATE® Technology potatoes. All Licensees of INNATE® potatoes must read and follow all INNATE® License Agreement requirements, including those set forth in this document and the Standard Operating Procedure (SOP) requirements pertinent to the Licensee's activities. Before signing a License Agreement, the Licensee understands that they have accepted stewardship responsibilities, including the closed loop stewardship program requirements for all INNATE® materials under their control. Simplot will verify the Licensee's performance of stewardship duties. Simplot may modify stewardship requirements and guidance from time to time.

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## 1. Purpose of this Document

- 1.1. This INNATE® Stewardship Program and Use Directions (I-SPUD) document provides Simplot's INNATE® Licensees and prospective Licensees with information regarding Simplot's requirements for proper stewardship, closed loop production and use of INNATE® Technology potatoes.
- 1.2. This document sets forth key requirements and includes guidance that is designed to assist Licensees in performing their stewardship responsibilities, including the closed loop stewardship duties. It is solely the Licensee's responsibility to implement sufficient stewardship work practices to ensure compliance with the License Agreement, which includes the content of this I-SPUD and the I-SPUD SOPs.
- 1.3. This I-SPUD document and the I-SPUD SOPs are incorporated by reference in the License Agreement as Appendix D and E, respectively. From time to time, Simplot may revise the content of this I-SPUD document, the SOPs and report forms. All current stewardship document versions will be available to Licensees by logging into the I-SPUD Licensee web portal ([www.I-SPUD.com](http://www.I-SPUD.com)) and/or in paper form upon request. Licensees will be notified promptly of changes to stewardship requirements.

## 2. Closed Loop Stewardship Program

- 2.1. The INNATE® potato technologies will be commercialized within a specialized, "closed-loop" quality management system. This system was designed by Simplot to manage and direct the sale of the Innate® potatoes exclusively to licensed users and Simplot-authorized U.S. domestic and/or Canadian domestic markets, as applicable.
- 2.2. This Program is comprehensive and requires each Licensee to rigorously segregate, identify, document and report to Simplot the growing, handling, storage, processing and sale of all INNATE® seed and potatoes.
- 2.3. Simplot Plant Sciences is a member of Excellence Through Stewardship® (ETS)—a global industry-coordinated organization that promotes the universal adoption of stewardship programs and quality management systems for the full life-cycle of biotechnology-derived plant products.

## 3. Regulatory Status

- 3.1. All Licensees have been informed, and understand that INNATE® potatoes were improved using modern methods of biotechnology. Such plants are commonly referred to as "biotech varieties", genetically engineered (GE), or, genetically modified organisms (GMO). Before entering commerce as a food or feed, most countries require that these crops complete a comprehensive food, feed and environmental safety review by one or more government regulatory authorities. Safety reviews are independently conducted and clearances are independently granted by individual countries. Simplot is currently pursuing regulatory clearances in multiple countries where U.S. and Canadian potato products are imported. Until and unless individual governments grant clearance for the import of INNATE® materials into their country, no introduction of any of the material in any form is permitted. Seed, crop, and processed potatoes and traces thereof are currently regulated, and essentially legally prohibited, outside of the U.S. and/or Canada. IT IS A

VIOLATION OF NATIONAL AND INTERNATIONAL LAWS TO MOVE SEED, CROP, AND PROCESSED POTATOES CONTAINING BIOTECH TRAITS ACROSS BOUNDARIES INTO NATIONS WHERE IMPORT OF SUCH POTATO MATERIAL IS NOT PERMITTED OR IN A MANNER INCONSISTENT WITH ANY NATION'S FOOD LABELING OR BIOSAFETY LAWS.

3.2. INNATE® potato varieties are currently approved for planting, food and feed use only within the U.S. and/or Canada, as applicable. Therefore, until future written notice to the Licensee from Simplot:

3.2.1. INNATE® potatoes or any products derived from INNATE® potatoes must not be exported in any form or in any amount to other countries.

3.2.2. LICENSEES MUST PREVENT ANY SEED, CROP, PROCESSED, OFF-GRADE, OR WASTE INNATE® POTATOES FROM ENTERING ANY PRODUCT CHANNEL WHICH COULD RESULT IN EXPORT OR UNAUTHORIZED DISTRIBUTION OUTSIDE OF THE UNITED STATES AND OR CANADA, AS APPLICABLE.

3.2.3. All Licensees must take steps to segregate INNATE® potatoes from any potato materials that could contact any food, food ingredient, feed, feed ingredient, or seed used in any unauthorized export channel. This includes all potatoes, off-grade, wastes and processed potatoes of any kind.

#### 4. Closed Loop Stewardship Program Requirements

**Table 1. I-SPUD Standard Operating Procedures (SOP's) and Records for Growers (specific SOP and record requirements are listed in Appendix E of the Limited Use License Agreement).**

SOP #	Standard Operating Procedure		Form #	Corresponding Form
DR 2.1	Planting, Cultivation, and Harvesting of Commercial Crop		DR 3.1	Crop Production Report
DR 2.2	Equipment Cleaning			Various
DR 2.3	Transport		DR 3.3	Crop Movement Report
DR 2.4	Storage		DR 3.2	Storage & Inventory Report
DR 2.6	Post-Harvest Field Management		DR 3.5	Record of Field Inspection
DR 2.7	Records			Various
DR 2.8	Training		DR 3.6	Record of Training
DR 2.9	Marketing & Distribution		DR 3.3	Crop Movement Report
DR 2.10	Sample Distribution		DR 3.12	Sample Distribution Report
DR 2.11	Incident Response for Licensees		DR 3.11	Incident Report
DR 2.12	Planting, Cultivation, and Harvesting of Seed		DR 3.14 DR 3.15	Seed Crop Planting Report Seed Crop Harvest Report

#### 4.1. **Training (see SOP DR 2.8)**

- 4.1.1. Management representatives for each Licensee must participate in Simplot stewardship training/re-training annually or as needed.
- 4.1.2. Training of facility personnel is the responsibility of trained Licensee managers. Management of each operation is responsible to ensure that applicable stewardship requirements are followed.
- 4.1.3. Training, I-SPUD document, I-SPUD SOP's, and forms setting forth Simplot requirements are provided to each Licensee. Licensees must develop, implement, and maintain internal work practices that assure and verify compliance with Simplot requirements.

#### 4.2. **Records (see SOP DR 2.7)**

- 4.2.1. Simplot provides each Licensee with a set of forms to report key stewardship activities that document and verify compliance and material flow within the Closed Loop Stewardship Program. These report forms will be provided to Licensees in electronic format, and in paper format upon request. In summary:
  - 4.2.1.1. Crop Production Report (Form DR 3.1): Used to record planting, harvest, waste management, crop destinations and equipment cleaning activities for COMMERCIAL crops
  - 4.2.1.2. Storage and Inventory Report (Form DR 3.2): Used to record crop security, product identification, segregation, cleaning and waste management activities
  - 4.2.1.3. Crop Movement Report (Form DR 3.3): Used to record shipping and receiving information between authorized locations
  - 4.2.1.4. Field Inspection Record (Form DR 3.5): Used to log post-harvest potato volunteer management activities
  - 4.2.1.5. Record of Training (Form DR 3.6): Used to record training activities conducted either by Simplot or grower
  - 4.2.1.6. Incident Report (Form DR 3.11): Used to record incident(s) and to document actions taken
  - 4.2.1.7. Sample Distribution Report (Form DR 3.12): Used to log sample distribution information
  - 4.2.1.8. Seed Crop Planting Report (Form DR 3.14): Used to record seed source, planting, waste management, and equipment cleaning activities for SEED crops.
  - 4.2.1.9. Seed Crop Harvest Report (Form DR 3.15): Used to record SEED crop harvest information including waste management, equipment cleaning and crop destination

#### 4.3. **Labeling and Identification:**

- 4.3.1. INNATE® Seed, fields, potatoes, by-products and wastes must be easily and clearly identifiable at all times. Identification processes must be in place to preserve the identity

of INNATE® potatoes from receipt of seed through cutting, preparation/treatment, planting, cultivation, harvest, conveyance, storage, and sale of harvested crops.

4.3.2. Field Identification (see SOP DR 2.1): Fields dedicated entirely for production of INNATE® potatoes (recommended) must be identified to specify growing locations. Identification may include field maps, physical markers, etc. Fields that are split between INNATE® and conventional varieties must have the perimeter of the INNATE® growing locations indicated using durable physical markers (posts, fence, etc.). GPS (decimal) coordinates are required and must be taken at field entry points or within the growing areas of all INNATE® potato fields; these points are reported on the Crop Production Report (Form DR 3.1).

4.3.3. Bulk Storage Facilities (see SOP DR 2.4): Facilities storing potatoes in bulk piles must have labels affixed near the storage entry door and/or to the barrier(s) between varieties (when multiple varieties are stored) clearly identifying each INNATE® variety.

4.3.4. Bulk Trucks/Trailers (see SOP DR 2.3): When transporting INNATE® potatoes from one location to another a method(s) that clearly distinguishes loads of INNATE® potatoes from conventional varieties must be applied. The method(s) used must be clearly communicated to the receiving location and must be substantial enough to prevent locations who are not expecting INNATE® potatoes from accidentally unloading them. Methods may include trailer seals, unique paperwork, locks, etc.

4.3.5. Containers in Storage (see SOP DR 2.4): In locations where INNATE® potatoes are stored in portable containers (bins, totes, bags, etc.), the minimum requirement is for each master container or pallet to clearly identify the material it contains.

4.3.6. Containers in Transit (see SOP DR 2.3): When portable containers (bins, bags, etc.) containing INNATE® potatoes are transported each container must clearly identify the material they contain. The minimum requirement is for each master container or pallet to be labeled.

#### 4.4. Cleaning (see SOP DR 2.2)

4.4.1. All equipment, storage and handling areas must be cleaned, visually inspected and documented to ensure the complete removal of all seed, potatoes, potato pieces and vines. Grower must clean all equipment: trucks, conveyors, seed cutters, seed treatment equipment, planters, cultivators, hillers, sprayers, sampling equipment, harvesters, sizing/grading equipment, storage buildings, bins, transloading areas, etc. Particular attention should be paid to ensure areas outside of normal product flow (e.g. behind shields, on braces, supports and ledges, in holes and other openings) are thoroughly cleaned. Equipment must be cleaned before and after all activities involving INNATE® potatoes. Record of all cleaning activities must be made and maintained to demonstrate compliance.

#### 4.5. Waste Disposal (see SOP DR 2.2)

4.5.1. Waste products including potatoes, off-grade (e.g. culls), vines and other wastes must be disposed of properly so that they rapidly decompose, do not grow outside of the INNATE® field and are not mixed with any other potato crops. If wastes are mixed, all wastes must be disposed of as INNATE® wastes according to these stewardship requirements. Examples

of proper waste disposal methods are: landfill, deep pit burial (covered with soil), composting, compost digestion, spreading over the INNATE® field (at the time of harvest only), exposure to extreme (cold/hot) temperatures, grinding, etc. Other methods for off-grade or waste use/disposal by third-parties require written approval from Simplot (e.g. use for cattle feeding).

#### 4.6. **Land Requirements**

4.6.1. **Land Access (see SOP DR 2.1 & DR 2.13):** Growers must select land that is suitable for segregated potato production and accessible to them for the license-required period of volunteer monitoring (see next section). For this reason, grower-owned land is preferred for INNATE® production. Land lessors must ensure legal access to the land for the required volunteer monitoring period so that volunteers can be managed, controlled and recorded by the Licensee and, upon request, inspected for compliance by Simplot or its designees. In either case, grower must ensure legal access for Simplot personnel to conduct inspections and audits in accordance with the applicable stewardship requirements.

4.6.2. **Concerning Whole and Divided (“Split”) Potato Fields (see SOP DR 2.1 & DR 2.13):** *Simplot urges Growers not to plant INNATE® potatoes in fields that are split, divided or shared with conventional potato plantings in the same crop year. However, if a grower chooses to plant a split potato field, they must plan and implement effective physical separation within the field. The separation must effectively prevent handling mistakes or overlaps during planting, and any commingling of INNATE® potatoes with other potatoes, during cultivation, hilling, harvest, trans-loading, transport, or storage. Also, to help identify different crops, where feasible, growers should use visually or physiologically-distinct conventional crop varieties (different skin or flower colors, flowering dates, or maturities) rather than varieties that are similar in type to the INNATE® variety. Extra diligence in equipment cleaning and prevention of equipment traffic between varieties is of critical importance. ***Special stewardship requirements for split fields are set forth below and denoted with an asterisk (\*)***.*

4.7. **Volunteer Monitoring (see SOP DR 2.6):** Growers are required to monitor and actively control any potato volunteers after harvest for the period of time stated in the License Agreement at Appendix C. As an integrated disease management practice, potato growers routinely destroy volunteers to eradicate pathogens present in tuber tissue so that crop yield and quality are optimized. In addition, tuber exposure to low or high temperature, wet conditions, and soil fumigants (where used), rapidly cause death and decomposition of potato residues. The volunteer potential of INNATE® potatoes is not different from conventional variety counterparts. Therefore, grower practices used for conventional potato control will also be effective in the control of INNATE® potato volunteers. In some regions—especially after mild winters, short rotations or sub-optimal volunteer management, growers sometimes see a low incidence of varietal mixing between conventional varieties of different colors. *The goal of the INNATE® potato volunteer monitoring period is to eliminate the risk of potato carry-over to future crops that will not be directed or sold to Simplot authorized parties.* It is the responsibility of the INNATE® grower to prevent any potential commingling with other potatoes by actively

monitoring and controlling volunteers, if present, through appropriate use of rotation crops in combination with herbicides and timely tillage. Growers should consult with state or regional agronomists or other crop management professionals regarding recommendations for potato volunteer management protocols. Growers must abide by all agrichemical label use instructions.

4.7.1. **Area to be monitored:** Grower must monitor the land planted with INNATE® Seed and all areas where INNATE® crop trans-loading, field traffic turnouts, equipment cleaning, and waste disposal occurred.

4.7.2. **\*Special Volunteer Monitoring Requirements for Split Fields:** If a field of potatoes was divided, split or shared between the production of INNATE® and conventional potatoes, either: 1) the entire field (INNATE® plus conventional areas) must be post-harvest monitored, or, 2) the area of the field used for INNATE® production must remain clearly identified and marked, and be managed separately from the rest of the field during the post-harvest volunteer monitoring period.

4.7.3. **Duration of Volunteer Monitoring (see SOP DR 2.6 and License Agreement Appendix C):** The duration of monitoring required will be risk-based, and determined by discussions between the Grower and Simplot prior to Licensing. The duration of the monitoring period will consider the climate, availability and efficacy of local best practices for potato rotation (rotation crops, rotation herbicides), fumigation (if used), and tillage options for eliminating potato carry-over potential between crops. Growers are required to use practices and crops to facilitate volunteer control and to document their monitoring and control activities for the required period.

4.7.3.1. **Exemption:** INNATE® growers who have contracted to grow a second or subsequent INNATE® potato crop on the same field are encouraged to follow agronomic best practices for rotation length. In such situations, any remaining volunteer monitoring requirement for the previous crop will be waived by Simplot.

4.8. **Isolation and Segregation from Conventional Potato Crops (see SOP DR 2.1 & DR 2.13):** Segregation of INNATE® potatoes and other potato crops must be maintained by the grower at each step to: 1) protect varietal purity, and, 2) prevent mixing between INNATE® and conventional varieties. The goal for field isolation and storage area segregation of INNATE® potato varieties is to prevent mixtures due to spills, equipment carryover, volunteer carryover or human error. Grower must spatially separate seed, cut seed, and crop from conventional potatoes by a physical distance or barrier sufficient to ensure that the seed or potato crops are not mixed, dragged, carried, dropped or spilled into adjacent fields, trans-loading areas, seed cutting areas, or, allowed to mix in storage areas or during transit.

4.8.1. **Field Isolation:** The field-to-field segregation distance implemented by the grower must be sufficient to keep the crop separated during all planting, growing and post-harvest cultural practices. Physical segregation (i.e., isolation, separation, or, set-back) between INNATE® and conventional potato crops may consist of, but is not limited to, roadway, fence lines, tree lines, non-potato crops, fallow areas, or other barriers that effectively impede or interrupt the direct flow of equipment traffic between fields. The isolation area should include a zone, near the field edge, but away from other potatoes, where the Grower will



clean equipment to remove potato debris and waste. During use, any equipment (planters, tractors, hillers, cultivators, disks, harvesters, conveyors, bulk trucks, etc.) that carries INNATE® potato debris, must not turn-out or drive over adjacent fields. The grower must consider the size and turn radius of equipment used, proximity to adjacent fields, field traffic patterns, etc. Growers should also consider additional set-backs if irrigation equipment (e.g., muddy wheels/tires), slope or washouts are likely to move the tubers beyond the planted area or field edge. Consider choosing a different field for planting if maintenance activities on adjacent roads, drainage ditches or canals are anticipated during the growing season which could result in displacement of the tubers beyond the field edge. (**Note:** The risk of potato flower cross-pollination is extremely low; viable true-seed from berries is very rare. Therefore, grower does *not* need to consider pollination precautions in field isolation planning.)

4.8.2. **\*Special Isolation Requirements for Split Fields:** In the specific case of a split field planting, a minimum of 20 feet (e.g., at least one or two empty planter passes) must be maintained between the different varieties. Row ends of adjacent potato plantings must be sufficiently separated to allow all field equipment to turn without entering into or traveling over other growing areas (e.g. 30 to 50 feet). Split-fields also require special field identification (markers) (see SOP DR 2.1 & DR 2.13).

4.9. **Incident Reporting and Corrective Actions (see SOP DR 2.11):**

4.9.1. In the event that a suspected or known mixing of INNATE® potatoes with conventional potato has occurred, or if potatoes/products have been misidentified or their identity has been lost during any handling or growing process, the following actions are required by the Grower.

4.9.1.1. Immediately upon discovery of seed or crop potatoes commingled with conventional potatoes, grower shall contact Simplot to determine proper disposition options. (See “CORRECTIVE ACTIONS” Sections in SOPs.)

4.9.1.2. All commingled potatoes and products involved in the incident must be isolated and contained, and the material placed on hold pending disposition. Maintain a record of the issue and disposition instructions and actions (DR 3.12).

4.9.1.3. All conventional potatoes mixed with INNATE® potatoes must be treated as INNATE® material.

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