The collection of this information is authorized by the Plant Protection Act of 2000. The information will be used to determine eligibility to receive all types of permits. No permit will be issued until this application has been approved.

U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
BIOTECHNOLOGY REGULATORY SERVICE

APPLICATIONS FOR PERMIT OR COURTESY PERMIT UNDER 7 CFR 340

(Genetically Engineered Organisms or Products)

1. NAME, ADDRESS, TELEPHONE, AND EMAIL OF APPLICANT

Name: Dr. Maisy Cornwall
Position: Associate Professor
Organization: Research University
Organization Unique ID:
Address: 111 Agriculture Lane
Farmington, NE 68714
County/Province: NOTE: THE APPLICANT AND CONTACT INFORMATION MAY
Township/Island: NOT BE DECLARED AS CBI
Day Telephone: 301-555-5555
FAX:
Alternate: 301-555-5555
Email 1: maisy@researchu.edu
Email 2:

2. INTRODUCTION TYPE

- [ ] Importation
- [ ] Interstate Movement
- [ ] Interstate Movement and Release
- [x] Release

3. PERMIT TYPE

- [x] Standard Permit
- [ ] Courtesy Permit

4. PURPOSE OF PERMIT

- [ ] Industrial Product
- [ ] Pharmaceutical Product
- [ ] Phytoremediation
- [x] Traditional
- [ ] test purpose

5. CONFIDENTIAL BUSINESS INFORMATION VERIFICATION (CBI)

Does this application contain CBI? [x] **Yes** [ ] **No**

CBI Justification:

NOT A VALID PERMIT

APHIS EXAMPLE PERMIT (RELEASE - Corn - Permit contains Confidential Business Information (CBI))

Legal Background
The Freedom of Information Act ("FOIA"), 5 U.S.C. Section 552, exempts from release "trade secrets and commercial or financial information obtained from a person and privileged or confidential"("Exemption 4"). 5 U.S.C. Section 552(b)(4). Exemption 4 applies where the release of protected information would likely cause substantial financial competitive harm.

Identification of the country and locality where the donor organism, recipient organism, and vector or vector agent were collected, developed, and produced; and the collaborators at the release site, the release site location, and acreage.
Providing location where the regulated organism was developed, and the location of the release, the size of the release and our collaborators at the release site would unfairly jeopardize the time and expense spent in developing these collaborative partnerships and could substantively put at financial risk the time and expense to set up the business partnership.

Phenotype description, phenotype, and genetic material (promoters, genes & terminators).
Providing the phenotype description, phenotype, and genetic material inserted and the donors would compromise the time and expense spent in developing the technology to produce the desired trait. This particular genetic combination is unique because the arrangement is novel and the genetic constructs are themselves novel.

If this information was disclosed, replication by a competitor would cause the loss on many dollars in developing our technology. Furthermore, the competitors would have access to this technology for free at our expense.

6. REQUEST TYPE

[x] **New** [ ] **Amendment** [ ] **Renewal** [ ] **Variance** [ ] **Amendment, Renewal and/or Variance**

Amendment/Renewal Description:
Previous Permit Number(s):

7. MEANS OF MOVEMENT

N/A

8. VARIANCE VERIFICATION

WARNING: Any use of ePermits to make materially false, fictitious, or fraudulent statements or representations is subject to civil penalties of up to $250,000 (7 U.S.C. § 7734(b)) or punishable by a fine of not more than $10,000, or imprisonment of not more than 5 years, or both (18 U.S.C. §1001).

Have you previously applied for variance(s) that you wish to apply to this permit? ☐ **Yes** ☒ **No**
Variance Number(s):

If so, describe in a brief summary how the variance will be applied:
N/A

9. REGULATED ARTICLE

Scientific Name: Zea mays

Common Name: Corn

Cultivar and/or Breeding Line:

Any biological material (e.g., culture medium, or host material) accompanying the regulated Article during movement:
N/A

Country and locality where the donor organism, recipient organism, and vector or vector agent were collected, developed, and produced:
The genetically engineered lines covered in this permit were constructed at [CornyGene, 222 Boulder Way, Stoneybrooke NE]

Processes, Procedures, and Safeguards Description:
The facility where the genetically engineered corn was constructed is a controlled-access building. The greenhouse facilities used to produce seed are also accessible by personnel with security badges. Regulated seed is kept separated from non-engineered seed by the use of labels.

10. ARTICLE SUPPLIER AND/OR DEVELOPER

Name	Location	Contact Information
[Fred] [Flintrock]	[CornyGene] [222 Boulder Way] NOTE:SUPPLIER MAY NOT BE CLAIMED AS CBI IF THE APPLICANT AND SUPPLIER AND/OR DEVELOPER ARE THE SAME. [Stoneybrooke], NE [68301]	**Day Telephone:** [555]-[555]-[5555] **FAX:** **Email:** [flintrock@cornygene.com]

11. PHENOTYPES/GENOTYPE

1) Phenotypic Designation Name: PopRight

Identifying Line(s):

Construct(s): XX-1234

Mode of Transformation: Agrobacterium tumefaciens, disarmed

Phenotype Description:
A description of the anticipated or actual expression of the altered genetic material in the regulated article and how that expression differs from the expression in the non-modified parental organism.

[The intended phenotype is to increase starch production in endosperm to enhance popping corn. The Waxy gene (Granule Bound Starch Synthase) is regulated by the endosperm specific maize granule-bound starch synthase gene promoter.]

Phenotype(s)

PQ - [Starch level increased]

Genotype(s)

Gene(s) of Interest
Promoter: [zmGBS] **from** [Zea mays] - [Tissue specifc promoter for granule-bound starch synthase (Waxy) gene]

Gene: [Granule Bound Starch Synthase] **from** [Pisum sativum] - [Granule Bound Starch Synthase is involved in amylose synthesis and the intent is to increase the amylose content to around 20 % of starch weight for the transgenic lines.]

Terminator: [NOS] **from** [Agrobacterium tumefaciens] - [Nopaline synthase (NOS) terminator is a very common stop signal for gene transcription.]

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Screenable Marker
Promoter: [35S] **from** [Cauliflower mosaic caulimovirus] - [The 35S promoter is a very strong constitutive promoter, causing high levels of gene expression in dicot plants, less so in moncots, but is still a very effective promoter]

Gene: [GFP] **from** [Aequorea victoria] - [green fluorescent protein (GFP) from Jellyfish. The green fluorescent protein (GFP) is a protein that exhibits bright green fluorescence when exposed to blue light. See Prendergast F, Mann K (1978). Biochemistry 17 (17): 3448- 53. In this case it is used to confirm successful integration of the construct in the transgenic plants]

Terminator: [NOS] **from** [Agrobacterium tumefaciens] - [Nopaline synthase (NOS) terminator is a very common stop signal for gene transcription.]

12. INTRODUCTION

Release Site

Location Name & Description	Location Address	Contact(s)
1) [McGregor Farm] - NOTE: RELEASE SITE LOCATION MAY NOT BE CLAIMED AS CBI, IF IT IS THE SAME AS THE APPLICANT'S ADDRESS.	Peter County IA [10125] **Proposed Release Start Date:** 4/15/2012 **Proposed Release End Date:** 4/15/2013 **No. of Releases:** 1 **Quantity:** [50] acres	**1)** [Bea] [Potter] **Day Telephone:** [555-555-5555]

Location Unique ID: BRS002

Location GPS Coordinates: [30.882236], [-83.805507]

Release Site History: This has been an agricultural research farm for over 5 years and has been in agricultural cropping during that time. The farm consists of agricultural fields that include corn, cotton and soybean plantings. There is other transgenic corn grown at this location. All the surrounding land is agricultural land or mixed-use pastures.

Critical Habitat Involved?: ___ Yes _X_ No

2) [Breezy Wood Farm]	Marshall County IN [55555] **Proposed Release Start Date:** 4/15/2012 **Proposed Release End Date:** 4/15/2013 **No. of Releases:** [1] **Quantity:** [15] acres	**1)** Rodney Crow **Day Telephone:** [555-555-5555]

Location Unique ID: BRS005

Location GPS Coordinates: [41.344336], [-86.153554]

Release Site History: This has been an agricultural research farm for over 5 years and has been in agricultural cropping during that time. The farm consists of agricultural fields that include corn, cotton and soybean plantings. There is other transgenic corn grown at this location. All the surrounding land is agricultural land or mixed-use pastures.

Critical Habitat Involved?: ___ Yes _X_ No

13. DESIGN PROTOCOLS

Production Design

A detailed description of the purpose for the introduction of the regulated article including detailed description of the proposed experimental and/or production design:

NOTE: THE INFORMATION IN THIS SECTION IS NOT CLAIMED AS CBI IN THIS SAMPLE PERMIT APPLICATION, HOWEVER, IT MAY BE CLAIMED AS CBI AS LONG AS APPROPRIATE CBI JUSTIFICATION IS PROVIDED.

The purpose of the introduction is to produce PopRight seed for research and product development. Plants will be grown to evaluate the performance of plants and production of grains [with increased starch yield]. The field sites will be isolated by no less than 660 feet from any non-regulated corn. Planting, harvesting equipment and other field equipment will be cleaned on site. Field equipment will be cleaned (using shovels, brushes, water, or compressed air, etc.) at the field site. Harvested grain will be labeled and stored in secure grain bins. All employees who handle the regulated material will follow the management practices, as specified in the permit and permit conditions, to confine the regulated material to the field site.

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Destination or Release Description

A detailed description of the intended destination (including final and all intermediate destinations), uses, and/or distribution of the regulated article (e.g., greenhouses, laboratory, or growth chamber location; field trial location, pilot project location; production, propagation, and manufacture location; proposed sale and distribution location):

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While in storage the corn seeds will be kept in a locked storage facility with limited access. Storage containers are identified by barcode labels that specify the line number. At least one sign stating "Authorized Personnel Only" will be posted in each area where the regulated article is stored. The greenhouse facilities used to produce seed are also only accessible by personnel with security badges. Seeds will be labeled with unique identifiers. Field equipment will be cleaned at the field site (using shovels, brushes, water, or compressed air, etc.).

Confinement Protocols

A detailed description of the proposed procedures, processes, and safeguards which will be used to prevent escape and dissemination of the regulated article at each of the intended destinations:

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Regulated corn will be planted only at the field site specified in the permit. Field sites will be well-defined with stakes. An unplanted alley of no less than 15 feet will separate corn regulated under this permit and any other planted agricultural material.

The field site, border rows and alleys will be monitored for volunteers for one year after harvest. Volunteers will be removed prior to pollen release and turned into the soil. Monitoring will be done once in every 4 weeks until the last freeze. The following growing season, monitoring will occur every 4 weeks. Any volunteer plants found will be destroyed by any one of the following methods: discing or other methods to incorporate the plant into the soil or chemical treatment. The following growing season, the field will be planted to a crop that is morphologically distinct unless the field site is covered under another permit or notification.

Fields will not be replanted with corn unless the corn is regulated and is planted under an APHIS permit or notification.

Final Disposition Method: [x] Destruction/Devitalization [ ] Other [x] Storage in Contained Facility

Final Disposition Description:

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Seed or other material capable of propagation will be devitalized by incineration, grinding or discing, herbicide treatment or composting at the field test site. Seed not used in the field trial will be returned to CornyGene (supplier) for storage or destruction.

14. ATTACHMENTS

15. ADDITIONAL INFORMATION

16. COURTESY JUSTIFICATION

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I, *Maisy Cornwall*, hereby certify that the information in this application and all attachments is complete and accurate to the best of my knowledge and belief.

I acknowledge this is not an application to move or import select agents, the genes expressing select agents, or the toxins made by the select agents, as described in 9 CFR 121.

I will not introduce the regulated articles described in this application until APHIS has deemed the application complete and has granted the permit. By signing this permit, I agree to comply with any and all state, local, and tribal laws and regulations that may apply to the introduction of the articles described in this applications.

If there are any changes to the information disclosed in this application, I will contact APHIS.

17. SIGNATURE OF RESPONSIBLE PERSON	**18. DATE**
Maisy Cornwall	November 1, 2011

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