College of Agricultural & Environmental Sciences
UNIVERSITY OF GEORGIA

GEORGIA AGRICULTURAL EXPERIMENTAL STATIONS

POLICY NUMBER 9

Revised on 09.03.2025

Policy on GAES Cultivar, Germplasm, Parental Line, and Genetic Stock Release and Distribution

This policy governs the process of release of cultivars, germplasm, parental lines, and genetic stocks by the Georgia Agricultural Experiment Stations (GAES), which is part of the College of Agricultural and Environmental Sciences (CAES).

This policy does not govern ownership, patenting, licensing issues, or material transfer agreements for Plant Material, which are governed by other authorities, including the University of Georgia Intellectual Property Policy and the Agreement dated February 1997 between the University of Georgia Research Foundation, Inc. (UGARF) and the Georgia Seed Development Commission (GSD; GSD Agreement).

This policy enables GAES to have a process to review the novelty and value of new plant material. The policy has a historical precedent, in keeping with the mission of GAES and CAES and gives professional recognition to the breeder(s). Successful completion of the release process also provides information that may be helpful to patenting and licensing decisions. The signatures on the release application represent a recommendation for approval. The final approval for release lies with the individual serving the combined role of Dean of CAES and Director of GAES (Dean/Director).

A. DEFINITIONS

1. **Breeder Seed:** In the case of sexually reproduced Cultivars, seed from a plant breeder used to maintain or increase the seed stocks of a Cultivar or Parental Line.
2. **Cultivar:** A group of plants with characteristics that are distinct, uniform, and stable. “Distinct” indicates that the cultivar can be differentiated by one or more identifiable morphological, physiological, or other characteristics from other standard cultivars. “Uniform” designates that variation among the plants of a cultivar for distinctive characteristics can be described. “Stable” indicates that the cultivar will remain unchanged to a reasonable degree of reliability in its distinctive characteristics and its uniformity when reproduced or reconstituted.
3. **Genetic Stocks:** Specialized Germplasm, including morphological, physiological, and chemical mutants, as well as aneuploid lines, isoline pairs, and representative cytoplasmic male-sterile lines.
4. **Germplasm:** Germplasm must have been improved by breeding procedures. It must possess some demonstrable merit but need not be commercially viable in its present form. Germplasm need not be distinct, uniform, or stable.
5. **Mother Plants:** Clones of asexually reproduced Cultivars that are produced from Propagules.
6. **Parent Material:** Propagules and/or Mother Plants, in relation to asexually reproduced plants.
7. **Parental Lines:** Parental lines must have demonstrated utility in applied breeding programs. A Parental Line, as opposed to Germplasm, will be used directly as a parent to produce a hybrid Cultivar.
8. **Plant Material:** The Cultivar, Germplasm, Parental Line, or Genetic Stock requested for release under this Policy.
9. **Propagules:** Vegetative plant material from a plant breeder which is used to maintain or increase a Cultivar that is asexually reproduced.

B. PLANT CULTIVAR AND GERMPLASM RELEASE COMMITTEE

1. Plant Cultivar and Germplasm Release Committees (PCGRC) review applications for release and are advisory to the Dean/Director. Currently, two PCGRC committees are constituted: one considers only ornamentals [Ornamental Release Committee (ORC)] and the other considers all other plant species [Plant Release Committee (PRC)].
2. PCGRC members are appointed by the CAES Associate Dean for Research after consultation with the Heads of the Horticulture and the Crop and Soil Sciences Departments and the Director of the Institute of Plant Breeding, Genetics, and Genomics.
3. Director of the Institute of Plant Breeding, Genetics, and Genomics shall serve as the Chair (non-voting) for both the ORC and PRC.
4. Each PCGRC shall be composed of at least five members, representing plant breeders and individuals with plant expertise from GAES. Membership of the PCGRC will be for three years with terms beginning January 1 and will change on a rotational basis.
    a. PRC will include:
        - At least three plant breeders with at least one from Horticulture and one from Crop and Soil Sciences.
        - One state extension faculty member
        - One member-at-large (USDA-ARS or GAES scientist with a background in plant breeding and/or genetics)
        - Director of the Georgia Seed Development (ex-officio)
        - Director of the Georgia Crop Improvement Association (ex-officio)
        - Representative of UGARF (ex-officio)
        - A crop-specific specialist, invited by the Chair to help review certain applications

    b. ORC will include:
        - At least five voting members with an ornamental/scientific background in plant breeding/genetics or plant science.
        - Director of the Georgia Seed Development (ex-officio)
        - Director of the Georgia Crop Improvement Association (ex-officio)
        - Representative of UGARF (ex-officio)
5. Heads of the Horticulture and the Crop and Soil Sciences Departments may serve as ex-officio members of the PCGRC if appointed by the CAES Associate Dean for Research.
6. ORC accepts applications any time during the year. Applications to the PRC will be requested from the faculty in the first week of January and the first week of July each year. Applications are due to the PRC Chair on February 1 and August 1 each year. The PRC meets twice a year in February and August. If Plant Material needs to be considered by the PRC outside normal procedures, the breeder should contact the Chair of PRC. These special requests may be handled off-cycle on a case-by-case basis at the Chair's discretion and must be accompanied by justification.
7. In all cases, applications will be distributed to committee members for review and a meeting date will be scheduled for the committee to discuss and vote on the submission. The committee decision and feedback will then be sent by the committee Chair to the release requester. Every attempt is made to keep the time from submission to notification under 30 days.

C. PROCEDURE FOR APPLICATION AND RELEASE OF PLANT MATERIAL – Assignment of Responsibilities

Breeders must obtain a written agreement signed by UGARF/Innovation Gateway prior to sharing Plant Material with a third party.

1. Breeder
    a. Obtain and assemble experimental data and prepare a release application concerning the Plant Material - Cultivar, Germplasm, Parental Line, or Genetic Stock (Attachment: application for release). The application must be filled out as completely and accurately as possible, with special care given to the justification for release (Item No. 6), as this information will be central to the committee's deliberations. The statements made in the description (Item No. 4) and the justification (Item No. 6) must be supported by statistically valid data presented as Tables or Figures or other commonly accepted forms of scientific data relevant to the plant material. In other words, breeders are urged to "SUPPORT THEIR CLAIMS".
    b. Forward the application to the appropriate department head for approval and signature at the beginning of the submission process. Simultaneously, inform the Chair of the PCGRC of the submission. For breeders at Griffin and Tifton, inform the appropriate Assistant Dean/Assistant Provost at their location and copy the submission form.
    c. If requested by the Chair of the PCGRC, the breeder should attend the PCGRC meeting and formally present evidence supporting the proposed Cultivar or Plant Material release.
2. Department Head (Crop and Soil Sciences, Horticulture or Plant Pathology)
    a. Review breeder's application.
    b. Ensure that the genetic material was developed using GAES resources, and the application appropriately acknowledges contributing scientist(s) involved in developing the genetic material.
    c. If approved, forward applications to the Chair of the PCGRC.
3. Chair of the PCGRC
    a. Send out a semi-annual request for applications
    b. Coordinate a prompt review of applications, ideally within 30 days following the submission deadline.

    If the Chair determines that the PCGRC lacks the necessary expertise for a specific crop in a release application, they should invite an appropriate crop specialist (CAES Extension) to advise the committee. The crop specialist will provide information but will not have voting rights.
4. PCGRC
    a. Critically review proposals for release and naming of Plant Material
    b. Forward positive recommendations of PCGRC along with supporting documents to the Associate Dean for Research.
5. UGA CAES Associate Dean for Research
    a. Review the PCGRC recommendations and forward recommendations to the Dean/Director.
6. UGA CAES Dean/Director
    a. Approve or disapprove the release of Plant Material.
    b. For cultivars, forward the signed document to the breeder, GSD, GCIA, and UGARF

D. INFORMATION FOR COMPLETING APPLICATIONS

1. Crop:

   Regarding the Plant Material, provide the name of the crop including scientific binomial.
2. Experimental name:

   Provide the name(s) under which the Plant Material has been tested.
3. Pedigree and history:

   Present the origin and a brief description of the parental materials going into the Plant Material

and outline the procedures used in developing the new products (hybridization, selection, regional tests etc.). The source(s) of publicly released germplasm used to develop the proposed cultivar/germplasm must be cited.

Breeders who utilize non-publicly released germplasm in the development of a new cultivar must work with UGARF to develop an appropriate agreement with the owner of the non-publicly released germplasm. This agreement should define development rights and be in place before proposing the release of a new cultivar.

If applicable, provide a description of the origin of Breeder Seed or Plant Material that will be provided to GSD or other agency for increase.

4. Description of Plant Material:

   Include specific characteristics, such as morphological traits that enable the differentiation of this Plant Material from other cultivars and that could be used by inspection or certification agencies. Information must include replicated data on characteristics such as yield, pest resistance, adaptation, plant/seed quality, etc. compared to the leading commercial cultivars, when appropriate. Evidence of uniformity, stability, and type and frequency of variants should be included, as is required in the Plant Variety Protection Certificate application.

5. Need for and potential users of Plant Material:

   Provide a brief description regarding the need for the new plant Cultivar/Plant Material and who may be expected to use the Plant Material. Include a description of the intended geographic region of commercialization.

6. Reasons for release:

   Indicate the primary reason(s) for releasing the Plant Material. Significant improvement in one or more commercially valuable trait(s) is sufficient grounds for release of Cultivars, as long as there is no loss in other important traits, such as yield or quality. Describe how the new Cultivar is superior/unique to the leading commercial Cultivar(s) now in use.

   For all Plant Material, include appropriate and adequate data comparing proposed release to standard Plant Material and/or leading commercial Cultivars in the target area for release. Qualitative phenotypic traits, such as a unique flower or foliage color, can best be documented with photos and a corresponding review of or comparison to currently available Germplasm. Use of a recent edition of the Royal Horticultural Society Color Chart is encouraged to describe color characteristics. Quantitative traits require adequate documentation including industry standard Cultivar comparative data. Multiple year and location data are usually expected, especially when claims of pest and or disease resistance are involved. All data should be presented in journal-quality Tables and Figures that are clearly marked, including table descriptions and footnotes where needed to make them stand alone. Statistical analysis of data greatly enhances the credibility of claims.

   Suggest up to three names for the Cultivar, if appropriate.

   Potential licensee. The breeder is encouraged to provide information related to interest by a commercial company(ies) to license the Plant Material. Pre-release testing with companies under Material Transfer Agreements (MTA) would alert companies to the values of the Cultivar and streamline the licensing process.

   For Cultivars, the following information should be included with the application:

   The yield or performance must be based on appropriate data for the plant species and should include data from the recommended geographic area of production. Data should provide comparisons of the proposed release to the major leading commercial Cultivars for the region; however, complete trial reports are not necessary. In cases where the Plant Material has been tested in other states, data from other states may make up a portion of the data. Tabular data with adequate statistics and a written statement of the breeder's interpretation of the data shall accompany the proposed release. UGA breeders may propose the release of a Cultivar(s) for production in geographic regions outside of Georgia even though the Cultivar may lack specific traits, such as pest resistance, considered importance for production in Georgia. In these cases, adequate supporting performance data is required from the target production region,

demonstrating commercial value and competitiveness.

a. Disease and insect reactions. The breeder shall provide data describing the reaction of the proposed Plant Material to attack by disease and insects that are important in the area of intended release. Any tendency toward higher susceptibility to damage by diseases or insects compared to the currently grown cultivars should be presented.
b. Reactions to adverse weather. The breeder shall report the relative susceptibility of the proposed cultivar to drought or excessive rainfall if either has been encountered during testing. The relative winter hardiness of perennials and winter annuals should be presented. Where cold susceptibility may be a problem, the originator should outline the areas of the state where the cultivar may safely be grown.
c. Defects. The breeder must list all known defects (whether covered elsewhere or not). Where serious defects are present, the breeder should present a statement explaining why the proposed cultivar should be released even though it may have certain defects.

For Germplasm, provide data to support the "claim of uniqueness" of the germplasm compared with the existing standard (e.g., a pest resistant Germplasm should have replicated data showing resistance compared to a susceptible and the "best" available resistant check). Provide description of available markers or plant phenotype to describe the Germplasm.

For Parental Lines, if the line is to be used to create a specific hybrid Cultivar, provide data on the performance and characteristics of the Parental Line and hybrid Cultivar. The value of a Parental Line used to create a specific hybrid Cultivar will be the performance of the improved hybrid Cultivar compared to that of the existing commercial hybrid Cultivar. If the Parental Line is to be used with unspecified parents to create hybrid Cultivars, provide data to support its general combining ability for the most important traits. If a Parental Line is to be used as a female parent for hybrid seed production, provide data on yield of hybrid seed compared to the hybrid seed production of other commonly used female parents.

For Genetic Stocks, provide inheritance data for the phenotype produced by the specific gene(s) unique to the Genetic Stock.

7. Contributing scientist(s):

   Include the scientists who significantly contributed to the Plant Material development. Note that contributing scientists could be a broader group than recognized breeders/inventors for intellectual property protection purposes. If the release is to be a joint release with any other Experiment Station (another University) or with an agency (E.g., USDA-ARS), the breeder should prepare and submit a joint release notice with signature lines for all approving Experiment Stations or Agencies.

8. Location(s) at which Plant Material was developed:

   List the Campus(es) and/or Research and Education Center(s) at which the Plant Material was developed.

9. Recommended form of intellectual property protection and royalty:

   If appropriate, recommend the breeder's preferred form of intellectual property protection to be requested and if the breeder believes a royalty should be assessed.

In addition, a Cultivar application needs to provide the following information:

10. Method of propagation: Describe how the Cultivar will be propagated.
11. Amount of Breeder Seed stocks or Parent Material that is available (if applicable): State quantities.
12. Amount of foundation seed stocks or Parent Material that is available (if applicable): State quantities.
13. For vegetatively propagation material, amount of cutting or bud material available forfor nursery distribution (if applicable): State quantities.
14. Describe any unusual difficulty anticipated in the production of any class of seed stocks: List any

possible problems.

15. Recommend a prioritized list of one or more names for the Cultivar. Cultivars may retain their experimental name when an exclusive license is anticipated (to allow the exclusive licensee to name the Cultivar).

E. COMMERCIALIZATION PROCESS FOLLOWING GAES RELEASE OF PLANT MATERIAL

1. Rights in Plant Material may be protectable as intellectual property under a plant patent, plant variety protection certificate, utility patent, or an equivalent outside the U.S. Plant Material having potential for intellectual property protection must be disclosed to UGARF and administered according to the University of Georgia Intellectual Property Policy.
2. In parallel to UGARF's evaluation of intellectual property rights in Plant Material, in most cases, after the release approval process is complete (i.e., the Dean/Director has signed the application), if there is a desire to commercialize the released Plant Material, then per the terms of the February 1997 Agreement between UGARF and GSD, a Cultivar Licensing Committee will meet to discuss licensing options.
3. However, in some cases, Plant Material approved for release may be developed under the terms of a sponsored research agreement that grants the sponsor an option to acquire an exclusive or non-exclusive commercial license from UGARF. In those cases, UGARF may manage commercialization with the sponsor without the assistance of a Cultivar Licensing Committee.

F. BREEDER'S RESPONSIBILITY FOLLOWING RELEASE

1. The breeder will submit an Intellectual Property Disclosure Form to UGARF for assessment of possible intellectual property protection.
2. Material transfer agreements (MTAs) and Restricted Testing Agreements (RTAs) are both used when faculty members wish to permit third parties to use Plant Materials for research and testing. Traditionally, MTAs are used for laboratory settings and RTAs for field settings, but there are exceptions. Breeders should contact UGARF if they are interested in sharing Plant Material with a third party, and UGARF will determine the appropriate agreement.
3. When commercialization is contemplated, the breeder shall be responsible for developing and maintaining a reasonable quantity of Breeder Seed or Parent Material of the released Plant Material, and for providing these in a suitable quantity to GSD, or sponsor-licensees or others as applicable, when necessary. In the case of vegetatively propagated Plant Material, a suitable quantity of Parent Material may be supplied to GSD or to nurseries mutually agreed upon by the breeder and GSD with input from the Dean/Director and UGARF.
4. In cases where a new cultivar appears worthy of commercialization based on the comparison to leading commercial cultivars, the breeder may supply Breeder Seed or Parent Material to GSD for increase in advance of its consideration by PCGRC for release. GSD may elect to increase the Breeder Seed or Parent Material prior to official release and licensing if given approval by the Dean/Director. If the anticipated cultivar is not officially released or will not be commercialized with GSD assistance, then Breeder Seed or Patent Material in an amount equivalent to what the Breeder supplied GSD will be returned to CAES or disposed of, at CAES's discretion. Breeder Seed or Parent Material of Plant Material that is not licensed within two years of cultivar release will be returned to CAES.
5. If the Plant Material is intended to be commercialized with required certification, then the breeder will be responsible for preparing the description of the cultivar and sending it to the Georgia Crop Improvement Association (GCIA) for the purpose of establishing certification standards.
6. The breeder is encouraged to prepare a registration article submitted to an appropriate peer-reviewed publication if applicable.

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GEORGIA AGRICULTURAL EXPERIMENTAL STATIONS

POLICY NUMBER 9 – ADDENDUM

Revised on 09.03.2025

The following policy statements apply to all plant material developed in whole or in part by the College of Agricultural and Environmental Sciences (CAES), whether or not that Plant Material is considered for release under Policy 9, and also applies to all CAES plant breeding programs.

A. DEFINITIONS

1. **Breeder Seed:** In relation to sexually reproduced Cultivars, seed from a plant breeder used to maintain or increase the seed stocks of a Cultivar or Parental Line.
2. **Cultivar:** A group of plants with characteristics that are distinct, uniform, and stable. "Distinct" indicates that the cultivar can be differentiated by one or more identifiable morphological, physiological, or other characteristics from other standard cultivars. "Uniform" designates that variation among the plants of a cultivar for distinctive characteristics can be described. "Stable" indicates that the cultivar will remain unchanged to a reasonable degree of reliability in its distinctive characteristics and its uniformity when reproduced or reconstituted.
3. **Genetic Stocks:** Specialized Germplasm, including morphological, physiological, and chemical mutants, as well as aneuploid lines, isoline pairs, and representative cytoplasmic male-sterile lines.
4. **Germplasm:** Germplasm must have been improved by breeding procedures. It must possess some demonstrable merit but need not be commercially viable in its present form. Germplasm need not be distinct, uniform, or stable.
5. **Mother Plants:** Clones of asexually reproduced Cultivars that are produced from Propagules.
6. **Parent Material:** In relation to asexually reproduced plants, Propagules and/or Mother Plants thereof.
7. **Parental Lines:** Parental lines must have demonstrated utility in applied breeding programs. A Parental Line, as opposed to Germplasm, will be used directly as a parent to produce a hybrid cultivar.
8. **Plant Material:** Any Cultivar, Germplasm, Parental Line, or Genetic Stock developed in whole or in part by CAES with potential for commercialization.
9. **Propagules:** In relation to asexually reproduced plants, vegetative plant material used to maintain or increase a Cultivar.
10. **Dean/Director:** The Dean of the College of Agricultural and Environmental Sciences, which position also holds the role of Director of the Georgia Experiment Stations.

B. BREEDER'S RESPONSIBILITIES TOWARD DISCLOSURE AND COMMERCIALIZATION

1. The breeder will submit an Intellectual Property Disclosure Form (https://research.uga.edu/gateway/patents-licensing/invention-disclosures/) to UGARF for assessment of possible intellectual property protection in and commercialization of Plant Material if the breeder identifies the Plant Material as having potential for commercialization. The Intellectual Property Disclosure Form will include identifying all potential inventors (other breeders), including those outside of UGA. (NOTE: This is not an indication of who the inventors are. Inventorship is a legal determination that will be made once a patent application, or other

applicable intellectual property protection, has been drafted and applied for).

2. If a breeder is interested in sharing Plant Material with a third party, the breeder should contact UGARF, and UGARF will determine the appropriate agreement (such as a Material Transfer Agreement or a Restricted Testing Agreement). **Breeders must obtain a written agreement signed by UGARF/Innovation Gateway prior to sharing Plant Material with a third party**.
3. When commercialization is contemplated, the breeder shall be responsible for developing and maintaining a reasonable quantity of Breeder Seed or Parent Material of the Plant Material, and for providing these in a suitable quantity to GSD, or sponsor-licensees or others as applicable, when necessary.
4. In cases where a new Cultivar appears worthy of commercialization based on the comparison to leading commercial Cultivars, the breeder may supply Breeder Seed or Parent Material to GSD for increase even in advance of its consideration by PCGRC for release if release is applied for. GSD may elect to increase the Breeder Seed or Parent Material prior to official release and/or licensing if given approval by the Dean/Director. If the anticipated Cultivar is not officially released or will not be commercialized with GSD assistance, then GSD-held Breeder Seed or Patent Material from the increase will be returned to CAES or disposed of, at CAES's discretion. Generally, GSD will return to CAES Breeder Seed or Parent Material of Plant Material that is not licensed within two years of Cultivar release.
5. If the Plant Material is intended to be commercialized with required certification, then the breeder will be responsible for preparing the description of the Cultivar and sending it to the Georgia Crop Improvement Association (GCIA) for the purpose of establishing certification standards.
6. The breeder is encouraged to prepare a registration article submitted to an appropriate peer-reviewed publication if applicable.

C. DISPOSING OF MATERIALS UPON CLOSURE OF A PLANT BREEDING PROGRAM

Upon the announcement of closure of a breeding program for any reason (for example, due to breeder resignation or retirement), the Dean/Director shall appoint the appropriate department head(s) to immediately assume direct responsibility for all Germplasm, breeding lines, genetic material, and potential Cultivars in that program, as well as any additional Plant Material related to the program. The relevant department heads, with appropriate input (e.g., the breeder, commodity commission and the extension specialist, etc.), should develop a plan for the retention and future use or other disposition of these materials. This plan should be approved by the PCGRC with final approval by the Dean/Director.