

**POLICIES AND PROCEDURES OF THE
KENTUCKY AGRICULTURAL EXPERIMENT STATION
FOR HANDLING IMPROVED PLANT SPECIES, HYBRIDS, AND VARIETIES**

I.	Introduction	2
II.	Development of Improved Germplasm	2
III.	Release Procedures	3
	A. Testing and Evaluation	3
	1) Criteria for Varietal Evaluation	
	B. Decision to Release	4
	C. Naming, Describing, and Registering	4
	D. Protection and Restricted Release	5
	E. Decision on Plant Variety Protection	5
	F. Release of Information	6
	G. Germplasm Release	6
IV.	Income from Plant Varieties	7
	A. Designation of "Inventors"	7
	B. Proposals for Marketing Plant Varieties	7
	C. Collection and Disbursing Income or Royalties	7
	D. Income to the Inventor	7
	E. Guidelines for KAES Income	8
V.	Classes of Seed	8
VI.	Seed Increase and Distribution Procedures	9
	A. Breeder Seed Maintenance and Increase	9
	B. Foundation Seed Increase	9
	C. Distribution of Foundation Seed	9
	1) New Variety Releases	9
	2) Older Varieties	10
	D. Varieties Eligible for Seed Certification	10
	E. Variety Review Committee	13
	F. Variety Recommendation	13
Appendices		
Table I -	Policy Statement for Kentucky Underwriters Program	14
Table II -	Variety Acceptance Request for Certified Seed list	16
Table III -	Intellectual Property Disposition – Traditional Seed Varieties Subject to ESCOP Policies	18

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HYBRIDS, AND VARIETIES**

I. INTRODUCTION

The Kentucky Agricultural Experiment Station (KAES) has a responsibility for developing new germplasm, varieties and maintaining breeder and/or foundation seed for traditional varietal¹ releases as assigned by the University of Kentucky in Appendix III. These guidelines are intended to identify those practices and policies relating to the development, release and multiplication of germplasm and varieties in KAES programs which may best serve public interests.

KAES consults with the Foundation Seed Project and Kentucky Seed Improvement Association (KSIA), the official seed certifying agency, before determining the distribution of foundation seed. Certified seed for the registered and/or certified classes is produced by members of KSIA under the guidance of its officers. The KSIA members are responsible for distribution of certified seed to Kentucky seed dealers and farmers at a reasonable price. These seed dealers utilize their wholesale and retail marketing outlets to make it available to farmers throughout the state.

Although the Experiment Station's Division of Regulatory Services has no direct responsibility for handling improved varieties, its Seed Laboratory cooperates closely with the Kentucky Seed Improvement Association, the Kentucky Seedsmen's Association and the Departments of Agronomy and Horticulture to maintain the highest quality of seed possible for Kentucky agriculture.

II. DEVELOPMENT OF IMPROVED GERMPLASM

One of the important functions of KAES's plant breeding program is the development of superior varieties to reduce production hazards, to improve quality, and to increase biological efficiency of plant species. To develop improved varieties, it is necessary to conduct studies of the characteristics and properties of plant materials, modes of reproduction and the inheritance of important characteristics. As problems arise which can be solved by plant breeding, KAES breeders have an obligation to investigate them.

Kentucky Experiment Station Staff have contributed to the development and acceptance of a national policy statement² on handling improved germplasm. Although the KAES accepts this national statement of principles, policies, and procedures it reserves the right, as do other states, to modify, revise or make adaptations in line with specific situations and needs of the state so long as the general spirit of the statement is not violated.

¹ To avoid repetition, the word "variety" will be used when referring to a variety, hybrid, and species. Variety is synonymous with the word "cultivar" in this policy.

² A statement of the Responsibilities and Policies Relating to Seeds. Approved by Experiment Station Committee on Organization and Policy-Association of Land Grant Colleges and Universities, October, 1989.

III. RELEASE PROCEDURES

A. Testing and Evaluating

Demonstrated performance is the basis for decisions on the release of new varieties. The general standard of performance is: only those varieties that are distinctly superior to existing commercial varieties in one or more characteristics important for the crop and at least satisfactory in other major traits should be released.

1. Criteria for Varietal Evaluation

Varieties should be tested by KAES (or cooperating agencies) using techniques that assure valid measures of performance in properly supervised experiments before they may be considered for release. Perennial crops shall be tested for a minimum of four harvest years (crops) and biennials, short-lived perennials and annuals for a minimum of three harvest years (crops). Varieties or annual crops developed in other states and jointly released by KAES with the origination agency(ies) shall be tested for a minimum of two years (crops). The testing locations should sample the environmental regions of adaptation.

Under conditions of severe hazard to a crop, e.g. a highly destructive disease, the criterion for number of years tested may be waived for those varieties with special merit.

All reasonable precautions should be taken to protect the privileged or restricted status of propagating materials, experimental lines and experimental varieties during testing and seed increase to prevent pirating and premature or unauthorized distribution prior to release. The possibility that an application for some form of variety protection may be filed intensifies the need for such precaution.

Results of KAES and regional (if available) performance tests and a statement summarizing the attributes of a variety being considered for release should be prepared by the project leader responsible for that particular crop and submitted to the Seeds Commodity Committee for review. The Director of the KAES appoints this Seeds Commodity Committee and charges it with the responsibility for recommending to him:

1. Proposals for the release of new varieties, hybrids, inbreds, clones or germplasm.
2. Seed increases of new strains in preparation for expected release.
3. Names for new varieties developed by the Experiment Station.
4. Proposals regarding the protection of varieties through the Plant Variety Protection Act.
5. Recommendations regarding exclusive release of certain varieties.

The Seeds Commodity Committee shall be composed of:

1. Seed extension and research faculty from the KAES.
2. Plant breeders.
3. Crops extension specialists.
4. Manager, Foundation Seed Project.
5. Manager, KSIA.
6. Other personnel associated with plant breeding programs or variety evaluation.

B. Decision to Release

When the KAES is solely responsible for the development of a new variety, the decision to release is the final responsibility of the Director. Where there is cooperation between other agencies in the breeding and testing, the final decision to release is made jointly by the Director of KAES and the appropriate administrator of these agencies. In certain instances either agency may act independently in releasing a variety after consideration has been given by both parties.

C. Naming, describing, and registering

New varieties are given permanent designations on or before release. Brevity in designation is desirable. When this designation is a name, one short word is preferable; two short words are, however, acceptable. Meaningful number designations or combinations of words, letters and numbers, consistent with accepted procedures, are also acceptable. The basic guidelines of the International Code of Nomenclature for Cultivated Plants should be followed in selecting variety name. Proposed names should be cleared through the Seed Regulatory and Testing Branch, Livestock and Seed Division, USDA, ARS to avoid possible conflicts and duplication.

A comprehensive varietal description should be prepared for each new variety by the respective project leader setting forth botanical, agronomic, or horticultural characteristics in comparison with standard varieties. This description becomes a permanent record for the variety to be used by certification and law enforcement agencies.

As each variety is described, the respective project leader should assume the responsibility for registering the variety with:

1. U.S. Plant Variety Protection Office.
2. National Variety Review Boards
3. Crops Science Society of America or American Society of Horticultural Science

Information on new varieties of crops for which national variety review boards have been established should be submitted to the review board following consideration by the Seeds Commodity committee, but before final release is made.

D. Protection and Restricted Release

The KAES may elect to protect [Plant Variety Protection (PVP)], patent or otherwise restrict certain uses of germplasm or varieties. The major consideration for patenting or restricted release should be that the public interest (Kentucky and US agriculture) will be better served by limiting such actions and rights. Royalties and fees that accrue from protected varieties and germplasm should be distributed to enhance and support research as outlined in Section IV and Appendix III. When KAES collects royalties from seed of a variety sold in another state and the variety was developed by cooperative research between the two experiment stations, these royalties should be shared.

Permanent or temporary increase rights may be granted in certain cases to one or more seed producers when it appears that the public interest will be best served by this method. When such an arrangement is adopted, the exclusive rights will be awarded to that firm or person appearing to have the best facilities for the promotion, increase, and distribution after open discussion of such proposed exclusive arrangement.

E. Decision on Plant Variety Protection

KAES will follow a flexible policy as to applying for a Protection Certificate under the Plant Variety Protection Act³ specifying when an approved variety is to be sold only as certified seed and retaining or waiving exclusive rights. Selection of an alternative or combination of alternatives under the Act will be made according to the specific situation. Alternatives are listed and described below:

1. No registration or application for plant protection.
2. Registration - Without Protection Certificate - Register the variety or other release with the Plant Variety Protection Office with such registration to be published in the journal of that office. Application would not be made for a Plant Variety Protection Certificate. (PVPC).
3. Certificate - Certification Required - Apply for and obtain a PVP certificate specifying that the seed must be sold as a class of certified seed. KAES may: (1) Declare the release to be a "public variety" with waiver of exclusive rights or (2) Maintain or assign exclusive rights for production, sale and distribution of seed or plant materials.
4. Certificate - Certification Not Required - Apply for and obtain a PVPC but do not specify that the seed of the variety must be sold as a class of certified seed. KAES may: (1) Declare the variety to be "public" with waiver of exclusive rights or (2) maintain or assign exclusive rights for production, sale and distribution of seed or plant materials.

³United States Plant Variety Protection Act. 1973 and 1995. USDA, Agric. Mar. Serv., Washington, D.C. Plant Variety Protection office.

After the decision has been made to release the variety, the procedure by which a variety will be submitted for Plant Variety Protection will be:

1. The breeder of the variety will prepare an application as provided by the Plant Variety Protection office.
2. The application will be submitted to the Seeds Commodity Committee for review and recommendation.
3. The application will be submitted to the director of the KAES for approval.
4. Only the KAES in conjunction with the plant breeder may obtain a "protection certificate" or other certificates of similar nature. Any royalties or fees shall be received, handled and accounted for as described in Section IV and Appendix III.

F. Release of Information

Seed producers, distributors and users should be informed as fully as possible of the values and the adaptation of new varieties in comparison with other available varieties.

Pertinent information as to the basic facts or origin and characteristics and data justifying the increase and release of a new variety shall be prepared by KAES and/or cooperating agency (ies) and provided to other interested states or agencies. The information used in deciding upon release of a new variety will also be used to inform seed producers, distributors and the public of its value. Participating states or agencies should use this material, supported or modified by their own information, in state or national publicity. Publicity intended for national or regional periodicals should include information on the regional adaptation of the variety.

The above procedure is intended to provide information that is complete, fair and unbiased, and will make it possible for seed producers, distributors, and users to make sound judgments in selecting varieties.

G. Germplasm Release

Germplasm release will be of two types:

1. Official releases that follow essentially the same procedures as variety releases. Such releases may be made when the germplasm is judged by the breeder to be of significant value in genetics and breeding research. The procedure will be the same as for the release of varieties except that evidence of superior performance is not required. Official releases of germplasm may be registered with the Crop Science Society of America and American Society of Horticultural Science.
2. Releases to one or more individuals upon request, at the discretion of the breeder.

The KAES will provide limited amounts of seed for germplasm releases upon request but assumes no obligation to maintain a continuing supply of seed.

IV. INCOME FROM PLANT VARIETIES

The University of Kentucky has assigned to the Kentucky Agricultural Experiment Station responsibilities for disposition and development of intellectual property associated with traditional seed varieties subject to ESCOP policies. Documentation is attached as Appendix III.

A. Designation of "Inventors"

A plant breeder who submits a recommendation for variety release to the Seeds Commodity Committee shall include designation of the inventor(s). The plant breeder responsible for the development of the variety, and who submits the release proposal, shall commonly be designated the sole or principal inventor. Technical services of the nature routinely provided by graduate assistants and staff who are directed by faculty shall not be sufficient justification for inventor status. As consistent with intellectual property law, collaborating faculty or staff who merely evaluates or analyzes plant materials is not commonly considered for co-inventor status. Substantial, continuing, and creative contributions to the plant breeding program and to the development of the specific variety would constitute more reasonable grounds for co-inventor status. The contributions of co-inventors (and the subsequent distribution of income) need not be equal, the plant breeder submitting the proposal will specify the percentage in the release proposal. The Seeds Commodity Committee shall forward to the Director the designation of inventor(s) as submitted in the release proposal, but will notify the Director of known disputes or conflicting claims to inventor status.

B. Proposals for Marketing Plant Varieties

The Director may assign responsibilities for coordinating the solicitation of proposals and/or marketing of released plant varieties to the Chair of the originating department. The inventors, the Seeds Commodity Committee and staff of the Foundation Seed Project will assist as requested. In cases where bids or proposals are to be solicited from seed production and marketing companies, the Seeds Commodity Committee will be responsible for review of such bids and proposals. This committee will submit a recommendation to the Director following the review.

C. Collection and Disbursing Income or Royalties.

The Director or his/her designee shall collect and disburse income from plant varieties, but may designate a department chair or other appropriate official to manage these funds. The inventors, Seed Commodity Committee Chair, and Chairs of the originating departments shall receive an annual accounting of income and disbursements.

D. Income to the Inventor

The inventor's share of the income shall be as consistent with University of Kentucky policy on intellectual property and is specified in Appendix III (40% of income over \$5,000). The inventor may decline to receive all or any fraction of

this income, but is responsible for notifying the Director in writing of this decision. Declined income will be added to the KAES share of income.

E. Guidelines for KAES Income

The share of income to KAES is also specified in Appendix III. The first \$5,000 of income from any variety is appropriated entirely to KAES, for the purpose of defraying costs of variety development. From this amount, the inventors' department will be compensated for expenses resulting from release, plant variety protection, marketing of the variety, or from the production/maintenance of seed. Any remainder of the initial \$5,000 shall be allocated to support continuing operation of the Foundation Seed Project.

The KAES Portion of additional income (60% of income over \$5,000, plus any income declined by inventors) shall be used for the support and enhancement of the inventors' research activities, and for plant breeding and supporting programs in general. The following distribution is recommended: Thirty percent of income over \$5,000 (normally, one half of any additional KAES income), plus all of any income declined by the inventors, will be allocated for support of the inventors' research programs. Thirty percent of income over \$5,000 will be allocated to the inventors' departments, for general enhancement of plant breeding and related programs. The Department Chair will designate a committee of Faculty and professional staff to recommend uses for these funds. In the case of co-inventors, the KAES fractions will be allocated according to the percentage contribution of each co-inventor in the release proposal.

V. CLASSES OF SEED

The following classes of seed are generally recognized for varietal releases covered in this policy:

Breeder seed is that limited amount of seed directly controlled by the originating or sponsoring plant breeder, institution, or firm which supplies the source for the initial entries of foundation seed. Breeder seed is under the direct supervision and control of the plant breeder or a designated agency and is not available to the general public.

Foundation seed (white tag) shall be the progeny of breeder seed so handled as to most nearly maintain specific genetic purity and identity as designated by the official seed certifying agency (KSIA).

Registered seed (purple tag) shall be the progeny of foundation or breeder seed so handled to maintain satisfactory genetic purity and identity as designated by the official seed certifying agency (KSIA).

Certified seed (blue tag) shall be the progeny of foundation, registered, or certified seed so handled as to maintain satisfactory genetic purity and identity as specified by the official seed certifying agency (KSIA).

VI. SEED INCREASE AND DISTRIBUTION PROCEDURES

A. Breeder Seed Maintenance and Increase

The varieties released by KAES should be preserved. The KAES will prepare a statement of plans and procedures for maintenance of stock seed classes, including limitations on the number of generations through which the variety may be sold by variety name.

Breeder seed increases are the responsibilities of the originating plant breeder in cooperation with the Foundation Seed Project, Department of Agronomy when applicable. As long as a variety is used by farmers and included in the varietal evaluation program, a reserve of breeder seed "should be maintained which can be used to replenish the foundation seed. This seed will be stored under controlled environmental conditions to maintain viability.

B. Foundation Seed Increase

An adequate and recurring supply of foundation seed is of prime importance in the multiplication of varieties. Foundation seed production for all KAES released varieties is the responsibility of the Foundation Seed Project (FSP), Department of Agronomy, University of Kentucky, Lexington, Kentucky 40546. The amount of foundation seed to produce is the final decision of personnel responsible for directing this project. For new varieties, the initial amount of foundation seed increased should be determined in cooperation with the plant breeder.

Where the needs of the program cannot be met using KAES land and facilities, qualified contract growers and/or conditioners may be selected by the FSP to make foundation seed multiplication. This production may be made in Kentucky or in another state depending on the crop, variety and needs. Precautionary measures should be taken, however, to prevent "genetic shifts" when foundation seed is produced outside of the variety's region of adaptation.

C. Distribution of Foundation Seed

The KAES has the primary responsibility for the release and allocation of foundation seed. Foundation seed should be allocated in a manner that will provide maximum increases of registered and/or certified seed and the greatest benefit to the public in general. To accomplish this two release procedures are followed by the FSP depending on when the variety was released.

1. New Variety Releases

The initial distribution of foundation seed for most new non-exclusive varieties developed by KAES is made to the Kentucky Underwriters. (A policy statement governing this cooperative program is shown in Appendix I). Members of the Kentucky Underwriters are experienced in certified seed production and marketing. This allows a rapid initial increase of registered and/or certified seed during the first year of production followed by distribution to Kentucky seed growers or farmers. Varieties developed by another state but released jointly by KAES may be offered to Kentucky

Underwriters (Appendix I) or distributed to other qualified certified seed growers for the initial seed increase.

The initial distribution of foundation seed for new varieties not jointly released by KAES is made to all qualified seed growers or seedsmen.

2. Older Varieties

The FSP will notify certified seed growers of the varieties available and the price per unit for foundation seed. Seed growers will make application (in writing) for purchase to the FSP. Where foundation seed supplies are not sufficient to fill all requests, allocations will be made using the following criteria:

a. **Deadline Date** - Those requests received in writing by the Foundation Seed Project by the order deadline date for soybeans and small grains are considered first.

b. **Classification of Applicants:**

Class I - A grower of certified seed who has previously purchased foundation seed and has successfully completed certification for either the registered or certified class of seed within the past two years.

Class II - A grower of certified seed who has successfully completed certification for either the registered or certified class of seed within the past two years.

Class III - A grower of certified seed who has previously (1) purchased foundation seed of crops other than the crop requested and produced registered and/or certified seed of the same crops or (2) produced certified seed of crops other than the crops requested.

Class IV - A grower who does not fit into Class I, II, or above.

c. **Method of Allocation:**

1. Class I growers receive first priority, and then Classes II, III and IV until seed supplies are exhausted for each variety.
2. Allocations are determined by comparing the quantity requested to the previous participation of applicants in the certification program.
3. A new grower will not receive large quantities of foundation seed until demonstrating the ability to produce certified seed. Orders from growers not intending to request certification will be filled after the needs of experienced certified growers have been met.

D. Varieties Eligible for Seed Certification

1. Those varieties which are acceptable for seed certification by Kentucky Seed Improvement Association (KSIA) will be reviewed at least annually. A variety will be accepted for seed certification only if it meets one or more of the following criteria:
 - a. Released by KAES;
 - b. Accepted by appropriate National Certified Variety Review Board;
 - c. Certificate issued by the Plant Variety Protection Office;
 - d. Accepted for certification by another member certification agency of the association of Official Seed Certifying Agencies (AOSCA); or
 - e. Approved by KAES Variety Review Committee (see sections D (2) and E) regardless of how the variety has been accepted for seed certification, the owner or sponsor of the variety must provide descriptive information including prominent identifying characteristics of the variety to the Manager of Kentucky Seed Improvement Association prior to field inspection for seed certification.

2. Any variety which is not eligible for seed certification under provisions a, b, c or d of section D,I may be submitted to the KAES Variety Review Committee (section E) for consideration provided:
 - a. Requests for certification are made by the originator, developer, owner or agent of the variety in writing to the Chairman of the Variety Review Committee. Any request for approval of a tobacco variety for seed certification must be received prior to January 1 to be considered for seed certification that year.

 - b. That additional information is provided (if requested) to the committee concerning the following information:
 1. A statement of the variety's origin and the breeding procedure used in its development. Applications must include pedigrees of all parents involved in the hybrid if they are not publicly released varieties. Descriptions of the breeding procedures used in developing the parents must also be included.
 2. A detailed description of the morphological, physiological and other important characteristics of the plants and seed that distinguish it from other similar varieties.
 3. Records of performance, including comparative yield data, insect and disease resistance, and other factors supporting the field performance or identity of the variety. These performance tests may be conducted by agencies other than KAES and shall include appropriate check varieties. For released annual crop varieties at least three years' data will be required from properly designed and supervised experiments which sample the proposed environmental; regions of adaptation. Three years data will also be required for perennial, biennial or short-lived perennial crops.

4. A statement on the suggested area of adaptation and the purpose for which the variety will be used. This should include all states and areas within states where the variety has been tested and is expected to be recommended and merchandised.
 5. A statement of the plans and procedures for the maintenance of stock seed classes, including number of generations through which the variety is to be multiplied.
- c. That applications for seed certification of tobacco varieties also meet the following additional conditions.
1. The originator, developer, owner, or agent of a variety may designate a name for the variety if:
 - a. The variety was developed by said person or company and the application for seed certification is complete.
 - b. It is not an F 1 hybrid variety developed by crossing two publicly released varieties. Claims that a publicly released variety has been changed by selection practices must be substantiated by appropriate tests comparing the selection to the original variety.
 - c. One of the parents of an F 1 hybrid variety is a publicly released variety or parental line, provided that the name of the public variety or parental line is stated on the label as a part of the variety designation.
 2. Agronomic performance data and other claims for an F 1 hybrid tobacco variety will not be accepted if they were obtained using a hybrid developed from parents other than those specifically listed as parents in the application for seed certification.
 3. Applications for tobacco varieties to be certified in the first segregation (F2) generation will not be accepted.
3. The KAES Variety Review Committee may consider the eligibility of specialty use tobacco varieties for seed certification on an individual case by case basis, meeting all the following criteria:
- a. All requirements in VI. D. (2) b. have been met, with the exception that only one year of agronomic data has to be provided.
 - b. Seed of these specialty use varieties will not be sold, but will be for distribution only to a contained group of growers. All certified seed labels used to identify these varieties will be stamped across the face with the phrase "NOT FOR SALE" in red ink.
 - c. The company that distributes seed of these specialty varieties to growers, or its designated authority, agrees to:
 1. Buy back all the resulting leaf production, and
 2. Provide the Variety Review Committee with a written Identity Preservation Program that they have in place to monitor the producers of the crop and its location, or have a third party implement an IP program.

- d. Tobacco varieties containing Genetically Modified Organisms (GMO's) would not be eligible for certification in this category.
4. When a variety is approved for seed certification, a sample of seed representative of the variety as marked shall be presented to the Variety Review Committee. This sample of seed will be retained as a control sample for use in verifying trueness-to-variety of future stock seed production. Sample size shall be that required under Section 1.4 in the current issue of "Rules for Testing Seeds" published by the Association of Official Seed Analysts.
5. The KAES Variety Review Committee (section E) may terminate the eligibility for certification of any variety regardless of how it was accepted for certification if:
 - a. The variety was misrepresented either intentionally or unintentionally at the time it was accepted.
 - b. The variety is changing.
 - c. The variety becomes susceptible to a new pest or a new race of such a pest to the extent that it could act as a reservoir for the pest.
 - d. The variety is found to be detrimental to Kentucky agriculture.
 - e. No grower has requested seed certification of the variety in the past three consecutive years.

E. Variety Review Committee

The KAES Variety Review Committee is established to determine the eligibility of crop varieties for seed certification which are not eligible under the provisions outlined above. The KAES Variety Review Committee shall be composed of a minimum of seven members depending on the crop for which a variety is being considered. The following personnel shall be members of this committee.

1. Manager, Kentucky Seed Improvement Association
2. Manager, Kentucky Foundation Seed Project
3. Plant breeders of the crop being considered.
4. Extension specialists of the crop being considered.
5. One plant breeder of another crop.

F. Variety Recommendation

The Department of Agronomy does not maintain a recommended list for any crop produced in the state. However, information on crop performance is provided in Progress Reports by crop commodity for those crops tested. Each crop commodity group may also develop a list of recommended varieties for specific crops and/or a recommendation statement to be included in these progress reports.

Appendix I
KENTUCKY UNDERWRITER'S PROGRAM
for the Initial Release
of New Crop Varieties

I. Objectives of Program

The objective of the Underwriter Program is to make available to Kentucky farmers high quality seed of new improved crop varieties. To accomplish this objective, seed of new varieties will be increased cooperatively between the University of Kentucky and the Underwriters and distributed to the farmers at a reasonable price.

II. Agreement

An agreement is entered into by and between the University of Kentucky and each individual Underwriter for the initial seed increase of each new variety.

III. Responsibilities

A. University of Kentucky agrees:

1. To inform Underwriters when new varieties have been approved for release. This notification will include descriptive information, performance data and the amount of foundation seed available for the variety.
2. Allocate foundation seed available to those Underwriters planning to increase the variety.
3. To assist Underwriters in locating experienced, certified growers for a new variety, if necessary.
4. To release foundation seed to no other person or group in Kentucky other than the Kentucky Underwriters during the first year of the seed increase unless it appears that the public interest will be better served by some other type of release.

B. The Underwriter agrees.

1. To meet the following criteria to remain eligible to receive seed of new releases:
 - a. Membership in Kentucky Seedsmen's Association
 - b. Membership in Kentucky Seed Improvement Association and active involvement in certified seed production either on his own farm or through experienced contract growers.
 - c. Pay an annual membership fee of \$100 before May 1, which will be used exclusively to promote new varieties released to the Underwriters.
2. To pay the Kentucky Foundation Seed Project (F.O.B., Lexington, Kentucky) for foundation seed of a new variety allotted by the University.
3. Not to sell or offer for sale any of the foundation seed originally allocated.

4. To utilize the best cultural practices available for producing a seed crop, including:
 - a. Careful selection of planting site;
 - b. Prepare suitable seedbed and plant a recommended rate;
 - c. Control or rogue off-type plants, undesirable weeds and other crops;
 - d. Guard against mechanically mixing while harvesting, storing and processing.
5. To produce the seed crop under the current certification requirements of the Kentucky Seed Improvement Association.
6. To select experienced certified seed growers when the crop is grown under contract.
7. To pay all fees assessed for certification of the seed crop as required by the Kentucky Seed Improvement Association.
8. To maintain seed produced in a certification program and make registered seed available to qualified growers of certified seed.

C. It is mutually agreed:

1. That the Underwriters will accept and increase all foundation seed from varieties developed and released to them by the Kentucky Agricultural Experiment Station.
2. That the Underwriters will not be obligated to increase new crop varieties originally developed in other states. However, if the Kentucky Agricultural Experiment Station chooses to participate in the release of a new crop variety developed in another state, foundation seed of the new variety will be offered to Underwriter members first. Such varieties can be released to the Underwriters for the first year of seed increase provided that at least three Underwriter members request all available foundation seed. However, if foundation seed of such varieties is still available after first being offered to the Underwriters, it will then be offered for sale to other certified seed growers.
3. That the University will not be responsible for failure to obtain a stand or loss of the crop.
4. That the release date to the public will be after the Underwriters have planted the foundation seed and approximately six months before the progeny would be replanted.
5. That the procedures for becoming an Underwriter (Underwriter By-Laws) will be made available to any certified seed producer, when requested.

Appendix II

**APPLICATION FOR APPROVAL OF A CROP
VARIETY TO BE CERTIFIED IN KENTUCKY**

**Variety Review Committee
Department of Agronomy
University of Kentucky**

Date _____

Name of applicant _____

Address _____

Name of Plant Breeder (if different from applicant): _____

1. Name of variety (common) _____

2. Name of species (Common and Latin) _____

3. Date of registration or release _____

If registered, where _____

4. Origin and breeding history of the variety _____

a) Outline the breeding procedure used to develop the variety, include the name of all public and private varieties, lines or clones used, do you want the pedigree kept confidential?

Yes _____ No _____

b) Describe the type and frequency of variants observed (if any) in the variety during reproduction and multiplication.

c) Discuss the genetic stability of the variety.

5. Description of the variety

a) Give a detailed description of distinguishing characteristics of both the seed and plants of the variety, describe the plant as it passes through the seedling stage, flowering stage and fruiting stage.

b) Describe a mature plant of the variety and compare it with similar commercially available varieties grown under the same conditions.

6. Indicate the region of adaptation and intended use of the variety.
7. Outline the procedure being used to maintain the basic seed stock breeder's seed of the variety.
8. What generation system is to be followed?
 - a) _____ Foundation, Registered, Certified
 - b) _____ Foundation, Certified
 - c) _____ Other (explain) _____
9. If a perennial crop, describe the number of years stand is eligible to produce each class of seed.
10. Identify any states or countries where this variety is presently being certified.
11. Attach available data for the variety from properly designed and supervised experiments which assure valid measures of performance and sample the proposed environmental regions of adaptation. Include comparative yield data, insect and disease resistance data and any other comparative data which supports the field performance or identity of the variety (at least three years data for annuals and for years for perennials).

Action taken by Variety Review Committee

Date _____

- Variety accepted for certification list.
- Variety rejected for certification list.
- Variety withheld from certification list until additional information is submitted. Explain.

Chairman, Variety Review Committee

Appendix III

INTELLECTUAL PROPERTY DISPOSITION – TRADITIONAL SEED VARIETIES SUBJECT TO ESCOP POLICIES

INTRODUCTION

Identification, testing and marketing of traditional plant varieties by the University of Kentucky, Kentucky Agricultural Experiment Station, is highly regulated, subject to the Federal Plant Variety Protection Act, state laws regulating agricultural seeds and the policies set forth by the Experiment Station Committee on Organization and Policy (ESCOP). Before releasing new varieties, ESCOP policy dictates that:

Decisions on the release of new varieties and the type of release should be made...by the State Agricultural Experiment Station (SAES) director. The SAES should appoint a policy committee or board of review charged with reviewing the proposal for the release of a new variety. Appropriate information concerning characteristics, performance, area of adaptation, specific use values, seed stocks, and proposed methods of variety maintenance and increase and distribution should be presented to this committee.

If a seed variety is approved and released, the Kentucky Agricultural Experiment Station is then obligated to maintain and produce Breeder's Stock Seed and in most cases to maintain and produce Foundation Seed. These on-going obligations create extensive financial obligations, which are unusual and very specific to the Agriculture Experiment Station.

For the foregoing reasons, the University of Kentucky's Intellectual Property Committee has requested the Director of the Kentucky Agricultural Experiment Station, after reviewing the recommendation of the Seed Commodity Committee, to make a determination as to the University's interest in such traditional seed varieties, to determine whether the seed variety has a reasonable chance for successful commercialization, and all other determinations required by ESCOP policy.

SEED COMMODITY COMMITTEE

The Director of the Kentucky Agricultural Experiment Station shall appoint the Seed Commodity Committee, ("Seed Committee"). The Seed Committee shall consist of not less than seven members of the faculty and staff from the College of Agriculture. The Seed, Committee shall review all proposals for release of a new variety and make a recommendation on the proposal to the Director. The Committee may also recommend proposed marketing methods for the new variety.

MARKETING NEW RELEASES

The Director of the Kentucky Agricultural Experiment Station shall be responsible for marketing new varieties recommended by the Committee. The Director shall market the new release in a manner designed to maximize distribution and availability of superior new varieties to Kentucky farmers, consistent with ESCOP

policies. The Director of the Kentucky Agricultural Experiment Station may request marketing assistance from UKRF or KTI at any time.

PROTECTION AND RESTRICTED RELEASE

In appropriate instances, patent protection may be sought for new varieties. The Seed Committee should identify any new variety it believes may be capable of patent protection or other forms of intellectual property protection. Any such new variety should then be presented to the IPC for its review.

ROYALTY SHARING

Net income is defined as gross royalties, license fees, or other such payments received by the University as a result of the sale of the variety, less necessary deductible costs, e.g., mailing or courier costs, interferences, licensing costs (specifically including but not limited to any amounts paid to UKRF or KTI for marketing assistance) patent enforcement, necessary travel, auditing fees, or sponsor shares. The phrase "gross royalties, license fees, or other such payments" means agreed upon payments specified in a license or other commercialization agreement usually expressed as a percentage of sales, a fixed dollar amount per unit sold, or a lump sum payment in return for the right to market and sell a variety. The term net income, for the purposes of this section, shall not include expenses incurred to grow or maintain seed stock. Unless otherwise approved by the Director of the Kentucky Agricultural Experiment Station and the Executive Director of UKRF, net royalties resulting from the sale of a new variety shall be shared as follows:

First \$5,000 of Royalties	All income to the Kentucky Agricultural Experiment Station as reimbursement for expenses incurred
Above \$5,000	40% to the Inventor 60% to the Experiment Station