LIBERIA SEED (DEVELOPMENT AND CERTIFICATION)

REGULATIONS

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Prepared by

Ministry of Agriculture
Republic of Liberia

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PREAMBLE:

The Government of Liberia (GOL),

Mindful of its strong efforts through the Ministry of Agriculture (MOA) for the development of plans and strategies for the regeneration of the agricultural sector in Liberia as referenced in several publications, including the "Lift Liberia" Interim Poverty Reduction Strategy (IPRS) 2006, Poverty Reduction Strategy (PRS) 2006, the Food and Agriculture Policy and Strategy (FAPS) 2009, the National Food Security and Nutrition Strategy (FSNS) 2008, and the Liberia Agriculture Sector Investment Program (LASIP) (Phase I: 2010 – 2015; and Phase II: 2018 – 2022) underpinned by the Comprehensive African Agricultural Development Program (CAADP) compact signed by Liberia in 2009, Agenda for Transformation (AfT) (2012 – 2017) and the Pro-Poor Agenda for Prosperity and Development (PAPD) (2018 – 2023);

Aware that, in all of the frameworks referenced supra, the lack of highquality seeds and planting material, especially having lost all stocks and germplasm banks during the 14-year crisis, has been underscored as one of the major constraints to agriculture productivity;

Recognizing that, with the restoration of peace and constitutional governance in 2006, stakeholders, including MOA, donors, development partners, farmers and others have recommended and supported fast-tracking general institutional reforms and restructuring, including specific emphasis on the development of the seed sector;

Recalling that, as a Member State, the Government of Liberia (GoL) has, over the years, made strong representations into, acquiesced in and acceded to the various ECOWAS instruments and regulations on agriculture and seeds including the 17/18 May 2008 agreement on the REGULATIONS C/REG.4/05/2008 ON THE HARMONIZATION OF THE RULES GOVERNING QUALITY CONTROL, CERTIFICATION AND MARKETING OF PLANT SEEDS AND SEEDLINGS IN ECOWAS REGION at its Sixtieth Ordinary Session of the Council of Ministers held in Abuja, Nigeria and which has been gazetted by the GOL in September 2014, thereby giving it full legal weight and reference in Liberia;

Accepting that the above ECOWAS Regulations require that Liberia, as a Member State, shall domesticate the Regulations by preparing the Liberian Seed Regulations based on the ECOWAS Framework for use in the national seed program in order to fit into, and derive the required benefits from the Community's seed trade;

Acknowledging that the MoA's draft Seed Policy and Regulatory Framework of 2012 and the draft Liberia Seed Regulations prepared in 2015 as well as ECOWAS Regulations C/REG.4/05/2008 and related Implementing Regulations have formed the main basis and guide for drafting Liberian Seed (Development and Certification) Regulations;

Mindful that the GoL has no previous specific enactment relating to seed legislation, but pursuant to the adoption of the ECOWAS Regulations C/REG.4/05/2008, the MoA prepared a draft Seed (Development and Certification) Act that was forwarded to and enacted into law by the Fifty Fourth Legislature of the Republic of Liberia and signed by the President of the Republic of Liberia on 17 September 2019;

Noting that these Regulations have been validated through a process of research, consultations and workshops by the consultants and relevant stakeholders in Liberia to achieve overall consensus to justify Ministerial approval;

Acknowledging and appreciating the continuous support, constructive participation and engagement of all current and past development partners, with particular reference to USAID/FED that has sponsored and funded the preparation of this Regulation;

NOW THEREFORE, and in view of realizing the Liberia Seed (Development and Certification) Regulations, the Ministry of Agriculture
ADOPTS:

SECTION 1: GENERAL PROVISIONS

CHAPTER 1: DEFINITIONS

Article 1: Definitions

For the purpose of these Regulations:

ACCREDITED PRIVATE BODY means any private institution empowered by the Seed Development and Certification Agency (SDCA) to undertake control and certification activities.

ACTIVE INGREDIENT means the content of a product to which its effectiveness is wholly or partly attributable.

ADVENTIVE PLANT means any undesirable plant or weed growing in a farm land.

ALLOGAMOUS PLANT means any crossed fertilized plant.

ALLOGAMY means the cross-pollination mode whereby the two gametes (male and female reproduction cells) are from different individuals.

AUTOGAMOUS PLANT means a plant which reproduces through the fertilization of its ovules by its own pollen.

AUTOGAMY means the fertilization mode whereby the male and female gametes come from the same individual.

BREEDER SEED OR PRE-BASIC means any generation G1, G2, or G3 seed situated between parent material and basic seed. Pre-basic seed is produced directly by the breeder of the variety or authorized agent.

BASIC SEED OR FOUNDATION SEED (G4) means any seed from pre-basic or breeder seed produced under the responsibility of a maintainer according to generally accepted maintenance breeding rules for that variety and intended for the production of certified seed.

CATALOGUE OF SPECIES AND VARIETIES means the official document containing the list of all registered species and varieties.

CERTIFICATION means the culmination of seed quality control processes in the field or in the laboratory, leading to assurance that the seed conforms to minimum standard of varietal purity through genealogical parentage and system of breeder seed maintenance of varietal features, in accordance with the provision of extant technical regulations.

CERTIFIED SEED means any seed obtained from the first or second multiplication of basic seed.

CHEMICAL TREATMENT means the application of one or several chemical agents on a seed for its phytosanitary protection.

COMMISSION means ECOWAS commission.

COMMUNITY means the Economic Community of West African States.

COMPOSITE VARIETY means any variety obtained by the combination of several lines or populations, of relative genetic variability.

CONTAMINATION means any contamination of seed multiplication process by the presence of off-types and adventive weed and/ or dangerous diseases and other cultivated plant species difficult to separate.

CONVENTIONAL SEED means any seed of a variety of which the visual, technological and agronomic characteristics have been stabilized through genetic and biological manipulation.

CROPPING DECLARATION means the document or form filled out by any individual or corporate body whose name features on the list of producers.

CROPPING HISTORY means cropping undertaken during the planting season immediately preceding the season under consideration.
DISEASED PLANT means any plant showing signs of malformation resulting from infestation/invasion.
DISJUNCTION means any plant produced from the descendent of a species but without the features of that specie given the fact that it has not been genetically engineered.
DOUBLE CROSS HYBRID means the product of a cross between two single cross parents involving four lines.
FARM GRAIN AND SEED means any seed or gain produced by a farm meant for personal use of the farmer and not destined for the market.
FARMER-MULTIPLICATORS means the category of farmers specialized in seed multiplication.
GENERATION means phylogenies in successive progenies.
GERMINATING CAPACITY means the ability of a batch of seed to germinate, evaluated by calculating the percentage of grains that germinates in a given batch of seeds, under normalized conditions within a given time frame.
GERMINITION TEST OR TRIAL means any laboratory test meant to observe the appearance of a seedling and its development up to the stage where its essential organs indicate that it would be able or unable, in future, to evolve into a normal plant under conducive full soil conditions.
HOMOZYGOTE means any individual whose cell contains double amount of genes of a specific nature.
HYBRID means the product of a cross between two or several genetically different varieties.
INDIVIDUAL means a live specimen of an animal or plant species produced from one cell.
INERT INGREDIENT means any impurities such as debris, soil or straw fragment contained in a batch or seed lot.
INFECTED SEED means seed penetrated by living pathogens such as bacteria, mycoplasma, viruses, protozoa, fungi or yeast.
INFESTED SEED means any seed invaded by parasitic animals such as insects or acarids.
ISOLATION means measures taken to protect a seed production farm from pollution by foreign pollen.
ISOLATION IN SPACE means keeping a set distance between the varieties meant for multiplication and another variety of the same specie purity, or between a variety that is being multiplied and the same variety that has not been rogued.
ISOLATION IN TIME means staggering the planting date of varieties of the same species such that the flowering periods do not coincide.
ISTA means International Seed Testing Association.
LABEL means any document visibly displaying specific information in readable manner to facilitate seed identification or traceability.
LABORATORY ASSISTANT means any person trained to work in a laboratory.
LINE means all individuals descendants of one or several parent. In plants, line is the result of successive self-fertilizations over several generations.
LOT ORIGIN means any venue for production of seed batch such as country, town, village or other relevant locality.
MAINTAINER means any person or organization responsible for maintaining a variety featuring in the national catalogue and likely to be sent in for certificate.

MARKETING means the sale, conservation for the purpose of sale, sale offer or any form of accession, supply or transfer for the purpose of commercial transaction, of seed or plants with or without remuneration.
MINISTER means Minister of Agriculture, Liberia.
MOISTURE OR WATER CONTENT means the percentage of water content in a seed sample.
NON-CONVENTIONAL SEED means any seed other than conventional seed.
OFFICIAL CONTROL AND CERTIFICATION SERVICE means the national service or body responsible for seed control and certification.
OFF-TYPE means any plant of a given specie that does not conform to the standard of the specie.
PACKAGE means any container notably bags, sachet, cartons made of a variety of material such as cotton, paper, aluminum and polyethylene in which seeds are packaged.
PARENT MATERIAL Go means any initial or zero generation (Go) material, production of which is based on a well-defined breeder seed maintenance method.
PARENT SEED means any seed sown to produce a new. Any generation can be used as a parent, except the generation sold to farmers to produce consumer grains.
PHYOSANITARYTREAMENT means the application of chemical products on seeds to protect them against disease and parasites or pests.
PLANT BREEDER means any individual or corporate body engaged in plant improvement with a view to creating new varieties.
PLANT CASTRATION means the removal or destruction of a plant male reproductive organ.
PLANT means any young plant, stem cutting, leaves or root, graft and runners meant for plant production.
PLANT SPECIE OR VARIETY means the collection of plants of the lowest known botanic taxon defined by using the characteristics of a genotype or a combination of genotypes distinguishable from all plant collections by at least one of these characteristics and considered as an entity given its capacity for authentic reproduction.
POLLEN means an aggregation of microscopic grains produced by stamen and which constitute the male productive element for flowering.
PURE LINE means any genetically homozygote and homogeneous line.
PHYTOSANITARY CERTIFICATE means the document that conforms to the models advocated by the International Convention for Plants Protection (ICPP).
QUALITY CONTROL means the range of activities carried out by the competent services to verify that varietal or genetic purity seed, their physiological and health conditions as well as their technological standards conform to the technical rules applicable in member states.
RAW SEED LOT means any batch of seed meant for certification.
REGISTRATION means the procedure by which the species or varieties intended to be included in the national catalogue of species, are registered.
ROGUE SEED means any seed of undesirable plants or weeds in a farmland.
ROGUING means elimination of off-type plants, diseased plants or any other plant that could alter seed quality.
SAMPLING means the range of operations used to obtain a sample in accordance with the established process.
SEED means any plant material or organ, or part plant organ, such as grain, shoot buld, scion, rhizome, tuber or embryo, able to reproduce an individual plant.
SEED ANALYSIS means the range of techniques used in the laboratory to determine the quality of seed sample.

SEED ANALYSIS LABORATORY means any premise specifically designed to conduct seed test generally involving specie purity, varietal purity, germination, and humidity level and health status, with a view to determining seed quality.

SEED BREEDER means any individual or cooperate body that has created or discovered or developed a new variety.

SEED CATEGORY means the class of seeds of the same nature potentially of one or several generations.

SEED CONTROLLER means any technician with the responsibility to inspect standing plant to ensure that the location and management of seed multiplication farms conform to the extant technical regulation in member states.

SEED DISTRIBUTORS means any individual or corporate body other than the seed producer who engages in seed marketing either as a wholesaler, semi-wholesaler or retailer.

SEED HEALTH STATUS means a condition involving the presence or otherwise of disease occasioned mainly by fungi (molds), bacteria, virus and other parasites such as insects, and nematodes.

SEED LOT means any quantity of seed defined and identifiable by a number, and is homogeneous especially in terms of identity and varietal or genetic purity, specie purity, germination capacity and humidity level.

SEED MULTIPLICATION CONTRACT means a written agreement between the farmer-seed growers and seed producers accredited by the competent services.

SEED PACKAGING means the operation by which seeds are dried, clean sorted, treated and packaged to avoid physical, chemical or biological degradation and facilitate handing.

SEED PRODUCER DISTRIBUTOR means any individual or corporate body specialized in the production of seeds and engaged in their wholesale, semi-wholesale or retail marketing.

SEED PRODUCER means any individual or corporate body specialized in the production of seeds and registered for inspection.

SEED PRODUCTION FARM means any parcel of land devoted to production and multiplication of seed of specific variety.

SEED PRODUCTION FARMS means any single holder parcel of land consisting of one or several seed farms.

SEED SAMPLE means any portion that is representative of seed batch sample in accordance with extant technical regulations.

SEED STORAGE means any conservation of seed in a storage area or warehouse under appropriate temperate and humidity conditions.

SEED TECHNICIAN means any seed professional licensed to assist seed producers by the national seed quality control and certification body or service of a member state.

SEED TUBER means all or any part of a tuber meant for cultivation as in the case of yam and potato.

SELF FERTILIZATION means the fertilization of a pistil by pollen from same flower or another flower of the same plant.

SHOOT means any young plant resulting from grain germination and still dependent on the same grain for nourishment.

SINGLE CROSS (F1) means the product of the cross between two pure lines which have been obtained by artificial self -fertilization.

SPECIE means all individuals that inter-cross and are distinguishable by a number of common features.

SPECIFIC PURITY means the proportion of plants in the field that meets the standard of a variety. In the laboratory, it means the proportion of a given variety in a seed batch.

STANDARDS mean a set of benchmarks for evaluating seed quality.
TECHNICAL REGULATION means the document specifying the characteristics of a production or its production procedure and methods, including the application of administrative requirements that must be respected. Technical regulation must also partially or fully determine the terminologies symbols or specifications used for packaging, marking and labeling of a product, service, production procedure or method.
THREE WAY CROSS means the product of a cross between a single female cross and a pure male line.
VARIETAL OR GENETIC PURITY means the proportion of plants in the field that meet the standards of the variety. In the laboratory, it means the proportion of a given variety in a seed batch
WEED GRAINS means any grain produced by herbaceous wild plants.
WEST AFRICAN CATALOGUE of PLANT SPECIES AND VARIETIES or WACPSV means the catalogue of plant species and varieties common to member states.

CHAPTER II: PURPOSE AND FIELD OF APPLICATION

Article 2: Purpose of the Regulation

1. The purpose of this Regulation is to establish a legal framework that will guide and direct all seed related operations and activities both public and private in Liberia and to harmonize the rules governing certification and marketing of seeds and seedlings in Liberia with those in the other Member States of ECOWAS.
2. The harmonization is intended to ensure good quality seeds of plant species and varieties listed in the West African Catalogue of Plant Species and Varieties, as defined in Chapter I of these Regulations, in all ECOWAS Member States.

Article 3: Field of Application

These Regulations shall apply to all seed related activities, especially those pertaining to seed quality control and marketing and shall not be applicable to freely used farm grains and seed, without prejudice to the regulations in force in other countries.

CHAPTER III: GENERAL PRINCIPLES

Article 4: Principle of Harmonization

These Regulations, for all intents and purposes, shall conform to the general seed rules and regulations adopted by ECOWAS with the sole purpose of bridging the gap between and amongst the Member States.

Article 5: Principle of Free Movement of Seeds

These Regulations shall ensure that all seeds, whether produced locally or imported, meet the minimum quality standards defined in the Harmonized Seed Rules and Regulations of ECOWAS and for the purpose of the organization of a common market as defined in the ECOWAS Community agricultural policy, there shall be free movement of seeds in all Member States, provided however that such free movement shall be guided by the West African Catalogue of Plant species and Varieties (WACPSV) to assure compliance with the required standards, as far as the seeds meeting the quality standards applicable in the community of ECOWAS Member States and relevant international standards. These

Regulations shall help bridge the gap between Member States' legislations in the field of seeds.

More specifically, the purpose of this harmonization is to:

i. facilitate local production of quality seeds amongst Member States, through application of regionally agreed principles and rules that minimize trade barriers;
ii. facilitate convenient access by farmers to quality seeds;
iii. create the appropriate climate for private investment in seeds and seed production;
iv. help widen the choice of the seeds available to farmers; and
v. Promote partnership between the public and private sectors.

Article 6: The Principle of Mutual Recognition and Equivalence

These Regulations shall ensure that the principle of mutual recognition of Certification based on the technical specifications and Community standards on plant seeds as well as on the registration conditions and procedures applicable in ECOWAS are complied with. Liberia, as a member state of ECOWAS, shall implement the principle of mutual recognition of certifications and shall recognize such conditions and procedures as contained in these Regulations.

Article 7: Principle of Recognizing International Standards

In order to ensure the free movement of seeds within the ECOWAS community and foster regional and international trade, all seeds, within the meaning of these Regulations, shall meet the qualifications under relevant international standards and technical regulations.

Article 8: Principle of Participation and Information

1. Pursuant to these Regulations, the Seed Development and Certification Agency of Liberia (SDCA) shall make available to the public all necessary information relating to seeds and in doing so, shall help train and build awareness of seed sector players.
2. Such information must also be available to ECOWAS Member States.

TITLE 1 - GENERAL PROVISIONS - NATIONAL CATALOGUE OF PLANT SPECIES AND VARIETIES

CHAPTER IV: AIM AND SCOPE

Article 9: West Africa Catalogue of Plant Species and Varieties (WACPSV) and National Catalogue of Plant Species and Varieties (NCPSV)

1. All plant species and varieties defined in these Regulations shall be in conformity with plants in the WACPSV. The WACPSV has been established as per Regulation C/REG.4/05/2008 which seeks to harmonize rules governing the control and certification of plant seeds and seedlings in the ECOWAS zone and is the official document containing the list of all registered varieties in Member States, for more effective management of seed quality control and certification.

2. The WACPSV shall be constituted by all registered varieties listed in the member States' national catalogues. Pursuant to the principle of ECOWAS Seed Rules and Harmonization, a National Catalogue of Plant Species and Varieties of Liberia, hereafter referred to as NCPSV, is hereby established for more effective management of seed quality control and certification. Such catalogue shall contain the list of all registered plant

species and varieties in Liberia, and shall be the only official and recognized national document for the purpose of these Regulations.

Article 10: Composition of National Catalogue

1. A National catalogue comprises two separate lists, A and B:
a) List A is made up of registered varieties whose seeds may be multiplied and marketed within member States;
b) List B is made up of registered varieties whose seeds may be multiplied within member States for eventual exportation out of the sub-region.
2. However, for some species, the national catalogue equally includes such special lists as:
a) list of former varieties for non-professional use;
b) list of local or conventional varieties generally known for their organoleptic qualities and characterized by National Agricultural Research Services (NARS).

Article 11: Technical Requirements for Registration in List A

1. To be registered in list A of the national catalogue, the new variety must be approved.
2. The conditions for approval are:
a) Be recognized as distinct, uniform, and stable in accordance with a DUS test protocol or a test on distinctive features, uniformity and stability;
b) Be recognized as being of sufficient performance in relation to the range of most widely used varieties which have not caused any major prejudice to users in accordance with a VCU test protocol or a test of value for cultivation and use;
c) Be designated by an approved appellation within member States.
3. However, to be registered in list A, edible species varieties may fulfill only conditions a) and c).

Article 12: Technical Requirements for Registration in List B

1. To be registered in list B of the national catalogue, the new variety must be approved.
2. The conditions for approval are:
a) be recognized as distinct, uniform and stable in accordance with a DUS test protocol;
b) be designated by an approved appellation within the member State.

TITLE II: LISTING FORMALITES FOR NEW VARIETIES

CHAPTER V: SUBMISSION OF APPLICATIONS FOR NEW VARIETIES

Article 13: Submission of Application for Listing

1. The application for listing in the National Catalogue of Plant Species and Varieties shall be submitted to the National Seed Board of Liberia, hereinafter referred to as the NSB.
2. Upon receipt of the application, the NSB shall take all the necessary measures to list the variety in the national catalogue.
3. The application model shall be prepared and issued by the Seed Development and Certification Agency, SDCA, and shall form an integral part of these Regulations.

Article 14: Conditions Concerning the Depositor

1. Any natural or legal person whose home or head office is within Liberia may submit an application for listing.

2. Natural or legal persons of other ECOWAS Member States and non-member State of the Community may equally submit an application on condition that the depositor shall have designated a proxy who is resident in Liberia.
3. The proxy must have an authentic power of attorney. The model for the power of attorney is in Appendix VII of this Regulation and forms an integral part of it.

Article 15: Explanatory Note
1. Instructions and practical guide relating to the submission of applications are contained in an explanatory note. The note is placed at the disposal of applicants by the NSB secretariat.
2. The model for the explanatory note is in Appendix VIII of this Regulation and forms an integral part of it.

Article 16: Information to be furnished by the Plant Breeder
1. For each variety for which an application for listing is made, a file shall be opened with several forms and shall contain such information that is indispensable for carrying out the tests as:
a) The genetic origin of any new variety;
b) A description of the commercial variety in conformity with the corresponding NSB forms;
c) Information stating whether the application respects the listing procedure for the genetically modified form of a variety that is already listed in the national catalogue or is being studied;
d) Results of at least three (3) trial runs carried out at the national level, including one (1) in a farm setting, two (2) years before the application was made;
e) Placing the variety in an early-fruiting group.
2. Due to the peculiarities of some varieties, especially the genetically modified varieties, the declarations required by the regulations in force shall be, where necessary, attached to the application file at the time of its submission.

Article 17: Varietal Appellation
1. A variety shall be designated by an appellation.
2. The varietal appellation shall be proposed by the applicant for approval by the NSB.
3. To be approved by the NSB, a varietal appellation shall allow for a clear identification of the variety and be different from any other appellation that designates an already existing variety of the same botanic species or a neighboring one.
4. The appellation of a well-known former variety shall not be used for a new one.

Article 18: Deadlines for Submission of Material
Instructions and practical guide relating to deadlines and quantity of material to be furnished are contained in the explanatory note found in Appendix VIII of these Regulations.

CHAPTER VI: PRICING SYSTEM

Article 19: Listing Fees
1. Tests carried out to list a variety in the catalogue shall be subject to the payment of listing fees based on such rates as are updated each year and made available by the NSB secretariat. The fees include the following:

a) Administrative fees: it shall be paid once at the time of submission of file;
b) Fees for DUS test: it shall be paid for each year a study is carried out;
c) Fees for VCU test: it shall be paid for each year a study is carried out;
d) Varietal identity check: any varietal check carried out within the framework of DUS studies (tests on new seed samples) shall be subject to an annual fee. Nevertheless, identity checks on seeds for agronomic trials (within the framework of an application for registration in list A) shall be included in the fees for VCU test.
2. Where there is an application for a special test on the variety, a bill shall be made and the plant breeder shall bear the cost resulting from such tests.

Article 20: Dealing with Listing Fees after Withdrawal of Files
1. In case of withdrawal of an application for listing before the deadline for submission of seeds, no fees shall be paid.
2. Where the withdrawal is made after the deadline for the submission of seeds, even if the latter had not been forwarded by the plant breeder, the listing fees shall be due.
3. DUS and VCU fees shall be due where the withdrawal of the application for listing is made too late to allow for the plant material of the DUS and VCU programs to be recalled.

TITLE III: TECHNICAL VARIETY TEST

CHAPTER VII: DUS AND VCU TESTS

Article 21: DUS (Distinctiveness, Uniformity and Stability) Test
The aim of the DUS test is to:
a) Verify if the variety belongs to the announced botanical taxon;
b) Ascertain whether the variety is distinct, uniform and stable;
i) Distinction – The variety is said to be distinct if it is distinguished clearly from any other variety whose existence, as at the date of submission of the application or, if need be, as at the priority date, is well known;

- The submission of an application in any country, for the Plant Breeders' Rights or the right to list on a catalogue of varieties approved for marketing, shall render such a variety well-known from the date of submission of the application if the latter results in the granting of the Plant Breeder's Rights or the right to list on the catalogue, as the case may be;
- The knowledge of the existence of another variety may be established by diverse references such as exploiting a variety whose listing is already in progress, listing the variety on a register of varieties kept by a recognized professional association or the presence of the variety in a collection of reference;

ii) Uniformity – The variety is said to be uniform if it is sufficiently homogeneous in its relevant features, subject to the foreseeable variation based on the peculiarities of its sexual reproduction or plant propagation;
iii) Stability – The variety is said to be stable if its relevant features remain unchanged following its successive reproduction or propagation, or, in case of a special reproductive or propagation cycle, at the end of each cycle.
c) ascertain the official description of the variety when it is realized that the variety meets the aforementioned requirements.

Article 22: VCU (Value for Cultivation and Use) Test
The aim of the VCU test is to:

a) study the productivity of a plant variety, that is, its output and components, the output regulatory factors, namely adaptation to biotic constraints including diseases or ravagers and abiotic constraints like high temperatures or edaphic toxicity and stresses;
b) Test the value for cultivation and more specifically the value for use.

CHAPTER VIII: CONDUCTING DUS AND VCU TESTS

Article 23: Responsibility for Conducting Tests
1. DUS and VCU tests shall be conducted under the supervision of the National Seed Board which shall handover all the tests to services adjudged competent by it.
2. A Variety Registration and Release Committee (VRRC) shall be mandated by the NSB to ensure a hitch-free technical test.
3. The VRRC shall monitor the carrying out of tests and prepare proposals for listing based on the results obtained.
4. The NSB shall complete these proposals and forward them to the Minister of Agriculture.

Article 24: Conducting DUS Tests
1. DUS tests shall be carried out in a single locality for at least two years under the supervision of the NSB. If this locality does not allow for certain characteristics of the variety that are useful for the DUS test to appear, a supplementary trial locality shall be authorized.
2. Trials shall be conducted pursuant to the guidelines of the International Union for the Protection of New Varieties of Plants (UPOV).
3. The uniformity and stability test takes into consideration the peculiarities of the mode of reproduction or propagation of the variety.
4. SDCA shall provide additional Appendices titled Test Protocol to carry out DUS tests on maize, rice sorghum, cowpea or cassava seeds which form an integral part of these Regulations and specify the test protocols of different plant species bearing on the conduct of the DUS tests.

Article 25: Conducting VCU Tests
1. VCU tests shall be conducted during a period of at least two years in several localities.
2. SDCA shall provide additional Appendices titled Test Protocol to carry out VCU tests on maize, rice sorghum, cowpea or cassava seeds which form an integral part of this Regulation and specify the test protocols of different plant species bearing on the conduct of the VCU tests.

Article 26: Duration of DUS and VCU Tests
The tests for distinctiveness, uniformity and stability (DUS) and the test of value for cultivation and use (VCU) shall be conducted simultaneously and generally spread over a two-year period and, exceptionally, over three years.

TITLE IV: STUDYING APPLICATIONS

Article 27: Verification of Application
1. The NSB shall study the form and the content of any application for verification submitted to it:

a) The study of the form shall help to eliminate obviously unacceptable applications, get incomplete applications updated and mark a submission date on complete ones;
b) The study of content shall, based on the information contained in the application, help ascertain whether the variety is new and whether the applicant is qualified to apply for listing.
2. If there is no obstacle to the listing, the NSB shall then take the necessary measures to organize the technical test of the candidate variety.

Article 28: Synonymous Appellation
1. In case of synonymy in appellation between two new varieties of the same species, priority shall be given to the application that was submitted first.
2. The second applicant shall then be asked to suggest a new appellation for his/her variety.

Article 29: Varietal Novelty
1. Novelty presupposes that at the time of submission of application for listing of the variety, the latter had neither been sold nor ceded with the Plant Breeder's approval for a period exceeding one year within the Community, and exceeding four years outside the Community, or exceeding six years in the case of trees and vines.
2. It is obtained after the examination of the content of the application based on the information supplied by the applicant.
3. On the request of the Plant Breeder, any variety used as at the date of the establishment of the National Catalogue of Plant Species and Varieties may be listed in this Catalogue, irrespective of the number of years of its use.

Article 30: General Principles for Studying Applications
1. A local or foreign Plant Breeder may resort to only one depositor to list several varieties of the same species within a given year. Where there is co-plant breeding, this same rule shall apply to the co-Plant Breeders.
2. Applications for listing from different Plant Breeders are counted separately at the depositor's level.
3. The Plant Breeder's declaration of a variety shall be final upon receipt of the file at the NSB secretariat. It shall no longer be changed even if the latter changed its corporate name or disappeared in the course of studies.
4. Where there is combined local plant breeding or combined local-foreign plant breeding, the submission of application shall be counted at the level of the Plant Breeder, acting as depositor. If none of them is the depositor, the submission of application shall be counted at the level of the Plant Breeder who submits the lowest number of applications.
5. The serial number is automatically obtained from the registration number of the variety at the NSB, since the registration number of the first application is the smallest unit.

Article 31: Administrative Reasons for Rejecting Applications
Applications for listing shall be rejected for the following reasons:
a) submission of application after the deadline;
b) missing administrative document;
c) incomplete technical file; and
d) plant materiel not supplied within the stipulated deadline.

Article 32: Listing
When, after the technical test, the NSB is satisfied that the variety meets not only the criteria for DUS and VCU listing, but also other demands like appellation, novelty or payment of taxes, it shall propose to the competent authorities to list the new variety in the National Catalogue and publicize such a listing as appropriate.

Article 33: Public Information
1. The NSB shall publish a newsletter at regular intervals. This newsletter has the following rubrics:
a) Application for listing;
b) Application for varietal appellation;
c) Withdrawal of application for listing;
d) Listing;
e) Rejecting application for listing;
f) Change in status (of depositors, of holders and proxies);
g) Striking off a variety from list; and
h) Official announcements.
2. Every year, the West African Seed Committee updates and publishes a West African Catalogue of Plant Species and Varieties which is a sum of all the national catalogues of Member States.

Article 34: Duration of Listing
The listing of a variety shall be valid for a period of ten years, renewable for periods of five years, subject to compliance with the provisions of Article 36 below.

Article 35: Varietal Maintenance
1. The person who applied for the listing of a variety shall maintain it in consonance with its identity as was established at the time of its listing. The person shall equally keep all documents up-to-date in order to allow for this conformity to be ascertained. He/she shall be called the maintainer.
2. All the necessary samples may be taken automatically by the competent services.

Article 36: Striking Off a Listed Variety
A listed variety shall be struck off at any time, under the following conditions:
a) If the Plant Breeder or his beneficiary so desires;
b) If the variety ceases to be distinct, stable and sufficiently uniform; and
c) If the provisions relating to listing a variety in the catalogue are no longer respected.

TITLE V: SPECIAL PROCEDURES

CHAPTER IX: LISTING THE MODIFIED FORM OF A VARIETY THAT IS ALREADY LISTED IN THE CATALOGUE OR IS BEING STUDIED

Article 37: Application
1. An application for listing in the catalogue may be submitted for a said ‘modified’ variety, that is a variety selected from another variety that is already listed in the national catalogue or is being studied, and in which simple determining characteristics like resistance to parasites or change in the constitution of fatty acid are introduced;

2. A special test procedure shall thus be applied based on the comparison of modified material with listed material; and
3. The NSB's VRRC shall draw up the list of characteristics that may be eligible for this procedure.

Article 38: Listing a Genetically Modified Variety
An application for listing may be submitted for a genetically modified variety. In this case, the genetically modified variety shall be tested like any other variety, subject to the fact that the changing characteristics shall have been authorized within the framework of the instruments in force in Member States of the Community.

Article 39: Justifying the Application
1. To be eligible for the special procedure, the Plant Breeder shall make an express request at the time of submitting his/her variety.
2. Where the depositor applied for eligibility for this procedure in respect of characteristics yet to be recognized by the NSB, he/she shall furnish a file specifically stating the introduced characteristic(s), its genetic determinant as well as those elements that allow for its verification before the agreed date of the year prior to submission.

Article 40: Material Applied for
The applicant shall supply the following material:
a) For the modified variety, the material necessary for a full DUS and VCU study of the modified variety;
b) For an already listed variety, the material necessary for a full VCU study, where it is not an official NSB control sample.

Article 41: Technical Tests
Technical tests for applications to list 'modified' varieties in the catalogue involve:
a) Comparing the modified material to the existing variety over at least one growing cycle of the DUS trials;
b) Comparing the modified variety to the existing one within the appropriate varietal series, over at least one growing test in the VCU network; and
c) Verifying the introduced characteristic with a protocol to be defined on a case-by-case basis.

Article 42: Decision Rules
1. A variety shall be recognized as being a 'modified version of an existing variant' if no significant difference is observed in the DUS trials and if no depressive effect is observed in the VCU trials, between the form said to be modified and the initial variant, except for the new characteristic that is introduced. This recognition may be granted at the end of only one year of a growing cycle if all the comparative tests are satisfactory.
2. Concerning the modified form of a variety that is already listed in the official national catalogue, should significant differences appear in the DUS growing trials (besides the new characteristic), the variety that is declared modified by the applicant shall be recognized as a completely new variety and must thus satisfy the VCU trial procedures in force at the time of submission of application for listing in the catalogue. This is after two (2) years of research.
3. Appreciating the absence or presence of significant differences lies with VRRC that includes acceptable fluctuations for each of the observed biological, agronomic and technological characteristics in its analyses.

Article 43: Financial Aspects
The depositor of the modified variety shall undertake to pay not only the annual DUS and VCU fees in force for the modified form, but also the VCU fees in respect of the test on the existing variety in the NSB network, except if this variety serves as a control for the agronomic tests.

CHAPTER X: APPLICATION FOR SPECIAL TESTS

Article 44: Principle of the Special Test
1. At the request of the plant breeder and when it is justified, the peculiarity of a new variety may be appreciated simultaneously as follows:
a) through trials carried out under standard testing conditions where all the varieties are subjected to the similar growing techniques, including controls; and
b) through special complementary trials where the new variety and the control varieties are tested based on a single protocol, considering the peculiarity of the novelty.
2. The plant breeder or the applicant who wishes to see his/her variety subjected to this double test must make such a request on an agreed date, prior to the submission of his/her application so that a testing protocol may be drawn up and presented to the NSB experts before being approved by the group of experts. The plant breeder shall bear the extra costs incurred in carrying out the special test, namely, conducting trials, carrying out technological analyses, as well as all the ancillary fees associated amongst others with trial inspections or administrative and statistical management.

Article 45: Justifying the Application
1. The application shall be justified by forwarding a file containing:
a) the characteristics of the novelty, especially those that distinguish it from the varieties subjected to standard testing;
b) the modalities of the recommended test; and
c) the preliminary results of the trials confirming the validity of the application. These results are based on a minimum of three (03) standard trials and three (03) special trials carried out within Liberia and include official NSB control results.
2. The application shall only be acceptable if the forwarded file clearly brings out the novelty's special interest.

Article 46: Special Testing Device
1. The testing device shall be drawn up by accredited bodies on the basis of information supplied by the plant breeder and submitted to the NSB for advice. It must allow for an assessment of the behavior of the novelty's peculiar nature.
2. A costing of this device shall be forwarded to the applicant for approval before the trials are carried out.

Article 47: Interpreting Special Test Results
1. In relation to standard VCU test, all the provisions of the usual technical regulation shall apply.
2. In relation to the special test itself, the modalities for interpreting results shall be defined by the NSB experts before sowing, based on the device adopted, and especially on the handling differential applied to the novelty and the control variety. The procedure for admission shall equally be fixed before the beginning of trials.

3. If at the end of the standard test the variety meets the conditions for VCU standard admission, it may naturally be listed even if it does not satisfy the procedure for admission fixed within the special network.
4. Conversely, if the variety does not meet the conditions for standard VCU admission, the assessment shall be based on the results obtained from the special test, by applying the initially defined procedures. When the listing of a variety is made on the strength of its performance within a special technical itinerary, the dual information relating to its behavior under special conditions and under standard conditions is disseminated and published officially after the advice of the VRRC.

TITLE VI: SPECIAL AND FINAL PROVISIONS

Article 48: Listing a Genetically Modified Variety

Listing the modified form of a variety shall be subsequently governed by bio-security rules.

CHAPTER XI: - ESTABLISHMENT OF NATIONAL SEED BOARD (NSB)

Article 49: National Seed Board (NSB) Established

A National Seed Board hereinafter referred to as NSB is hereby established to work along with, as per ECOWAS Regulation C/REG.4/05/2008, the West Africa Seed Committee hereinafter referred to as WASC which has been established to supervise and coordinate the seed industry of the Community.

Article 50: Functions of the National Seed Board

a. Contribute to the implementation of this Regulation in matters of seed quality control, certification and marketing with the view to fostering the development of the seed sector;
b. Formulate and provide overall policy guidelines and monitor the development of the national seed system;
c. Work closely with WASC and other relevant institutions in the implementation of its work and the management of the seed sector support fund;
d. Ensure that all information on seeds is accurate and periodically provide such information for verification of compliance with the approved seed quality control and certification system;
e. Establish strategic lobbying and advocacy mechanisms for resource mobilization;
f. Advise on and review the financial management systems and ensure proper accounting in SDCA; and
g. Advise on standards for guiding the financial management of SDCA

Article 51: Composition of the National Seed Board

The National Seed Board of Liberia shall comprise of the following fifteen members:
1. Chairman to be appointed by the President of Liberia;
2. Director of the Seed Development and Certification Agency who serves as the secretary to the Board;
3. One technical professional and relevant representative of/from the Ministry of Agriculture;
4. One technically relevant person nominated by Farmers Union (FUN) of Liberia;
5. Two Deans of Agriculture Colleges nominated by tertiary Universities with Agriculture Colleges;

6. Director General of the Central Agricultural Research Institute (CARI)
7. Minister of Commerce (MOC);
8. Two private sector representatives knowledgeable and engaged in seed development activities;
9. Register General of the Cooperative Development agency (CDA);
10. Executive Director of the Environment Protection Agency (EPA);
11. Minister of Finance and Development Planning;
12. ECOWAS Resident Representative; and
13. Head/Representative of the Donor Working Group

Article 52: Tenure of Members of the NSB

The members of the NSB shall hold office for a period of four (4) years and shall be eligible for re-nomination unless their seats become vacant by incapacitation, death and/or earlier resignation or otherwise. In any such case, the nominating authority shall nominate another person to complete the unexpired term.

Article 53: Meeting Procedure and Quorum

The NSB may, subject to approval, make its own guidelines for meetings, fixing quorum and regulating its own procedure and the conduct of business to be transacted by it.

Article 54: Variety Registration and Release Committee

A **Variety Registration and Release Committee** hereinafter referred to as VRRC is hereby formed to be under and responsible to the NSB. The Functions of the Variety Registration and Release Committee shall be as follows:

a. to review and maintain the national variety list and to approve new varieties of seed;
b. to review the history and performance records of selected varieties of seed;
c. to determine the contribution of varieties of seeds to agricultural development;
d. to approve variety release and entry of seeds into the seed multiplication program;
e. to make recommendations on obsolete varieties of seeds;
f. to determine the varieties of seeds to be released, rejected and referred or outclassed;
g. to establish standards of varieties of seeds eligible for seed certification;
h. to formulate the policy on allocation of seeds to growers for multiplication of seeds; and
i. to give advice to plant breeding organizations on market and farmers

Article 55: Membership of VRRC

The membership of VRRC shall comprise of breeders, agronomists, seed technologists, agro-processors, farmers, economists and other professionals from the NSB membership and non-NSB members from the private sector. Membership of the Committee shall be limited to ten members, to be appointed by the Minister of Agriculture upon advice by the NSB. The Board may appoint smaller specialized professional task forces for specific time bound tasks, on ad hoc basis, reminded however that all findings, reports and recommendations derived from such committees and/or task forces so appointed become binding based on decisions and regulations of the NSB. The SDCA mentioned in Chapter XII below shall provide the secretariat for NSB and VRRC.

CHAPTER XII: ESTABLISHMENT OF SEED DEVELOPMENTAND CERTIFICATION AGENCY (SDCA)

Article 56: Formation of a Seed Development and Certification Agency
A Seed Development and Certification Agency hereinafter referred to as SDCA is hereby established to act as the lead organ in the implementation of these regulations, coordinate, regulate, administer and carry out all the functions of the seed certification and control agency, as well as conduct seed development activities for the benefit of the seed industry of Liberia as referenced in Article 57 below.

Article 57: Functions of the Seed Development and Certification Agency:
a. SDCA shall be a corporate body charged with perpetual succession and a common seal and may sue and be sued in its corporate name. It shall be technically linked to the Ministry of Agriculture and operate under the authority of the Minister of Agriculture. The policy of SDCA shall be under the purview of a Governing Board (hereinafter referred to as the Board) which shall be appointed by GoL upon advice by the Minister.

While initially the SDCA shall function mostly as a seed quality control and certification agency, it will progressively develop its capacity to take on other responsibilities in seed development, as implied in its name. The full range of functions at full capacity will be as follows:
a. Responsible for seed regulatory functions, quality control, certification and enforcement of the Seed Regulations;
b. Analyze and formulate programs, policies and actions regarding seed development and the seed industry in general, including legislation and research on issues relating to seed testing, registration, release, production, marketing, distribution, certification, quality control, supply and use of seeds in Liberia, as well as importation and exportation of seeds and quarantine regulations relating thereto;
c. Design an improved management system and procedure relating to the administration of the national seed program and advice the Government of Liberia (GoL) on its organization, management and proper financing;
d. Analyze the market and prices of seeds; and
e. Control, supervise and approve activities to be conducted by specialized units of the agency as follows:
i) Seed Industry Planning & Development;
ii) Variety Registration and Release;
iii) Seed certification and standards; and
iv) Administration and Finance.
f. Advise the national research system on the changing pattern of seed demand and farmers' needs;
g. monitor and evaluate the achievement of the national seed system and recommend improvements thereon;
h. Encourage the formation or establishment of seed companies in Liberia for the purpose of carrying out research, production, processing and marketing of seeds;
i. undertake advocacy for the seed sector and assist in mobilizing resources for the development of the national seed industry; and
j. Perform such other related functions as may be required from time to time.

Article 58: Service in the Employment of SDCA
Service in the employment of SDCA shall be approved as per current Civil Service Regulations and accordingly, officers and other persons employed in the Board shall be entitled to pension according to the Civil Service rules.

Article 59: Remuneration for SDCA and Members of the NSB and VRRC
Each member of the NSB, VRRC and Staff of SDCA shall receive remuneration and or allowance based on an approved budget which shall be a component part of the approved national budget allocation for SDCA.

Article 60: Reporting by SDCA
SDCA shall report periodically to its Board as well as NSB covering its activities during the period under review.

CHAPTER XIII- UNITS ESTABLISHED UNDER THE SEED DEVELOPMENT AND CERTIFICATION AGENCYAND THEIR FUNCTIONS

Article 61: Units of SDCA to be formed
(1) There are hereby established for the SDCA, the following Units to be operationalized when the necessary capacity has been attained as per determination and approval by the Minister upon advice by the NSB:

a. Seed Industry Planning and Development Unit;
b. Variety Registration and Release Unit;
c. Seed Certification and Standards Unit;
d. Administration and Finance Unit; and
e. Any other such Units or bodies as the Board may from time to time deem expedient for effective discharge of the functions of SDCA under these Regulations.

(2) Each of the Units referred to in subsection (a) of this Section shall be headed by an Assistant Director sufficiently trained to the required level of expertise.

Article 62: Seed Industry Planning and Development Unit
The Seed Industry Planning and Development Unit shall have responsibility for:-
a. Facilitation and monitoring of the production and distribution of breeder, foundation and certified seeds;
b. Liaise with public and private sector research and development agencies on variety development and release;
c. Identification, development and provision of technical support to small, medium and large seed enterprises;
d. Carrying out seed promotion programs to encourage the use of high quality seeds by farmers;
e. Development of community-based seed enterprises in order to spread the use of improved seeds among farmers;
f. Providing planning and monitoring support to SDCA for both on-going and future activities;
g. Providing and developing management information systems (MIS) for planning support to the NSB; and
h. Undertake training activities and information dissemination on seeds and seed technology.

Article 63: Variety Registration and Release Unit

The Variety Registration and Release Unit shall support and facilitate the official processes laid down for the approval or recommendation of varieties to be sold and used for agricultural purposes. Such declaration shall be made by notification to the public indicating the kind of variety, origin, and date of declaration. The Unit will maintain and manage the National Catalogue of Plant Species and Varieties and shall monitor and coordinate all activities relating to variety tests, trials, registration, release and notifications.

Article 64: Seed Certification and Standards Unit

The Seed Certification and Standards Unit shall be responsible for the following:-

a. Setting and enforcing standards that govern the quality of seeds;

b. Monitor and evaluate seed quality during production, distribution and marketing;

c. Ensure that proper procedure of seed production is followed during growing and harvesting of seed crop, seed handling at processing plants as well as inspection of premises and other physical facilities used by private breeders, seed growers, seed companies and processors to ensure compliance with standards;

d. Maintain the list of registered breeder, foundation and certified seed producers;

e. Verify the eligibility of notified crop/cultivars offered for certification and ensure that the seed source used for planting was authenticated and the record of purchase is in accordance with the Seed regulations;

f. Sampling and testing of seeds;

g. Grant certificates including tags, labels, seals, etc as prescribed under this Seed Regulations; and

h. Conduct varietal purity/grow-out-tests for confirmation of genetic purity of all foundation seed and certified seed lots under a certification program.

Article 65: Administration and Finance Unit

The Administration and Finance Unit shall be responsible for the following:

a. Set up, establish and structure the unit into sections to include the following: Accounts, General Services, Personnel, Procurement;

b. Develop regulations and policy framework for managing and administering the finances of the SDCA based on international accounting principles/standards and in accordance with the Liberian Financial Management Act (FMA) and other relevant statutes;

c. In close collaboration with NSB, the Board and the Seed Industry Planning and Development Unit, develop strategies for financial resource acquisition and management as issues of budgetary constraints, increased competition for financing, transparency and accountability make it an imperative to do so;

d. Beyond the scope of already constrained public budgetary support, develop strategies to innovatively mobilize financial resource from donors, development partners, private sector, grants and establish mechanisms for financial resource acquisition management;

e. Coordinate procurement of supplies and services governed by the Public Procurement and Concession Act (PPCA) of Liberia and acceptable international standards;

f. Establish performance management system and compensation/motivation schemes, policies and procedures that influence staff retention and enhances motivation recognizing that effective human resource development and management is key to efficiency and productivity; and

g. Develop and manage the physical resources (plant, equipment, buildings, other) of the Agency guided by effective plans for replacement and maintenance;

CHAPTER XIV- SEED DEVELOPMENT FUND

Article 66: Establishment of Seed Development Fund

(1) There is hereby established a Seed Development Fund which shall be maintained by the SDCA, and from which shall be defrayed all expenditure incurred by the SDCA and NSB, in their functions towards the management, support, coordination and development of the seed industry.

(2) There shall be paid and credited to the fund established pursuant to subsection (1) of this section:

a. initial-take off grant provided by the GoL;

b. such money as may be provided to the SDCA by yearly budgetary allocation approved by GoL;

c. all such moneys as may be raised for the purposes of the SDCA and NSB by way of gift, loan, grants in aid, testamentary disposition or otherwise;

d. all interests received in respect of moneys invested by the SDCA, including revenue earned from its various activities; and

e. all other assets, from time to time, accruing to the SDCA.

(3) The fund shall be managed in accordance with rules made by the Board and without prejudice to the generality of the power to make rules under this subsection, the rules shall in particular contain provisions:

a. specifying the manner in which the assets of the fund are to be held, and regulating the making of payments into and out of the fund;

b. requiring the keeping of proper accounts and records for the purpose of the fund in such form as may be specified in the rules;

c. for securing that the accounts are audited periodically by an auditor appointed from a list and in accordance with guidelines supplied by the Auditor-General; and

d. requiring copies of the accounts and of auditor's report thereon to be furnished to the Board.

Article 67: Annual Technical (Activity) and Financial Reporting

The SDCA shall, no later than six months after the end of each year, submit to the Board a report on the activities of the SDCA during the preceding year, and shall include in such report the audited accounts of the SDCA.

SECTION II: QUALITY & CONTROL

Chapter XV: PRELIMINARY PROVISION

Article 68: The purpose of control

The purpose of control shall be to enable the SDCA to ascertain that the seed submitted to it:

a. Are of acceptable variety, genetic purity and quality and

b. Are in good physiological and health condition; and meet the technological standards, where appropriate. The necessary standards shall be in harmony with standards set by the ECOWAS Protocols on seeds.

Article 69: Area of Control

1. Seed quality control shall apply to all stages and venues of production from the farm to the producer's or distributor's storage facility, which has previously been admitted for control.
2. All locally produced seeds shall be processed and tested through an established and commissioned seed Laboratory and shall meet the standards set in this Regulation.

Article 70: The Quality Control Authority

The function of the SDCA, the authorized seed quality control authority, shall include examination of seeds whether locally produced or otherwise to ensure that they meet the required standard and quality as contained in these Regulations.

Article 71: Origin of Parent Seed

The SDCA or other accredited private body shall ensure that the Seed Producer or Seed Grower uses only certified parent seed. All Seed Producers or Seed Growers shall justify the origin of parent seed with documentary evidence including invoice, delivery notes or by exhibition.

Article 72: Procedure (Application) for Registration for Quality Control

a. SDCA shall grant accreditation to any Seed Company or seed Grower that qualifies under these Regulations. Such applicant must fill in the necessary form addressed to the SDCA, providing all relevant information as required.

Article 73: Registration Criteria

Upon receipt of the filled application form, SDCA or its appointed officer in charge shall examine same to ensure that the applicant has met all the requirements set out in this Regulation.

a. General criteria and special criteria.

Any individual or corporate body wishing to be admitted for quality control shall meet the following conditions:

i. Observe the appropriate technical regulations as mentioned in these Regulations;
ii. Have sufficient land;
iii. Have sufficient and qualified technical personnel;
iv. Possess appropriate facilities and equipment; and
vi. Meet other criteria to be determined by the technical regulations in accordance with the characteristics of each species.

Article 74: Registration Certificate (Also known as Professional Card)

a. As part of its functions, the SDCA shall issue a certificate to individuals or corporate bodies who have met the registration requirements as contained in this Regulation.
b. To qualify for a certificate, the applicant shall pay a registration fee in accordance with the type of activity. The amount, payment modalities and allocations of the proceeds of the single registration fee shall be determined by the SDCA.
c. Those qualified for a Registration Certificate shall include but not limited to the following individual or corporate bodies:

- Seed/Plant Breeder;
- Producer of foundation seed;
- Producer of certified seed;
- Plant producer (Nursery farmer);
- Wholesaler;

- Retailer;
- Importer/Exporter; and
- Associated operators such as packaging professionals, brokers, transporters and packagers

Article 75: Validity of Certificate
A Registration Certificate issued to a qualified holder shall be valid for 3 years and renewable at the holder's request, in accordance with the applicable procedures above indicated.

Article 76: Suspension of Certificate
1. In addition to Section VI of these Regulations, the certificate of a Holder who violates the following shall be suspended in the following cases; after written notification to the holder:
a. Violation including non-observance of the provision for these Regulations despite the directives of the official quality control and certificate service;
b. Where sanction has been imposed on the holder pursuant to this Regulation.
2. In the event of suspension of certificate, the holder shall have a period of thirty (30) days from the date of notification to comply with the provision in these Regulations. After this deadline, the holder's name shall be deleted from the register of Holders of certificate for the specific activity.

Article 77: Withdrawal of Certificate
Save in the case of Force Majeure, a Certificate shall be withdrawn and/or nullified where:
a. The holder has not been active for a period of 2 consecutive years.
b. The holder has committed an offence under Section VI of this Regulation depending on the gravity of the offense.

Chapter XVI: ORGANIZATION OF PRODUCTION

Article 78: Classification of Persons/Institutions Engaged in Seed Production
There shall be maintained a register of persons and organizations licensed to engage in seed production and marketing under the following classification:
a. seed production company;
b. seed enterprises production or contract for seed company;
c. breeder seed production agency (research institutes and private);
d. foundation seed grower (research institutes and private);
e. enterprise seed processor; and
f. seed dealer whether as wholesale or not.

Article 79: Seed Producer and Farmer-seed Grower
a. A seed producer as defined in this Regulation and duly admitted for quality control may enter into multiplication contract with one or several farmer seed growers engaged in similar species.
b. A farmer-seed grower shall not be authorized to conclude multiplication contract with several producers. However, exemption may be allowed where the contract with several producers does not cause prejudice to anyone of them.

Article 80: Production and Trade of Seeds (varieties to be multiplied)

Only seeds of the varieties registered in keeping with these Regulations or listed in the West Africa Catalogue of Plant Species and Varieties (WACPSV) may be eligible for multiplication.

b. Pursuant to these Regulations, for varieties to become eligible for seed production and trade they must be registered, released and certified by SDCA

c. The seed production and trade of crop/cultivar and planning materials imported by public /private seed institutions shall be permissible only after registration.

d. The characteristics of these varieties shall be consistent with samples deposited at the time of registration with the national varieties catalogue.

Article 81: Classes of Seeds

There shall be three classes of seed derived from nucleus seed/Parent material as follows:

I. Breeder Seed

Seed that is produced directly under the supervision of the plant breeder, originator, or owner of cultivar, and which provides the source of the initial and recurring increase of foundation seed. Breeder seed shall include all generations of the purified breeding and selection process from the original parental material and the final generation shall be genetically pure as to guarantee that in subsequent generations (i.e., foundation and certified seed classes) it shall conform to subscribed standards of genetic purity. The other quality factor such as physical purity, inert matter, germination rate shall be indicated on the label attached to the container). The breeder seed shall be packaged and supplied by the breeder in the form and manner prescribed.

II. Foundation Seed

Foundation seed shall be the progeny of breeder seed, or be produced from foundation which can clearly be traced to breeder seed. The production of foundation seed shall be certified by the SDCA to maintain specific requirements of genetic purity and identity of a variety, and shall meet certification standards for the crop being certified.

The following guidelines shall be observed during production of foundation seed:

a. Foundation seed produced directly from breeder seed shall be designed as foundation seed stage I, and seed produced from foundation seed stage I, shall be designated as foundation seed II. The foundation seed II shall not be used for further multiplication as another stage of foundation seed, and shall be used only for production of certified seed class.

b. The minimum certification standards shall be the same for both foundation seed Stage 1 and II unless otherwise prescribed.

c. The Certification tags of foundation seed stage I and stage II shall be the same unless and otherwise prescribed.

d. The production of foundation seed II shall ordinarily be adopted when it is expressly felt by SDCA particularly for the following group of crops:

- Vegetatively propagated crops;
- Apodictically reproduced crops;
- Self-pollinated crops;
- Often cross-pollinated crops and cross-pollinated crops, provided adequate safeguards are taken to maintain genetic purity and identity of the variety;
- Composite and synthetics;
- Parental line increase of hybrids.

III Certified Seed

Certified Seed shall be the progeny of foundation seed, so handled as to maintain specific genetic purity and identity according to standards prescribed for the crop being certified. In addition, the following guidelines shall be observed for the production of certified seed class:

Article 82: Generations of Certified Seed

1. Certified seed may concern successive seed generation:
- First generation or "R1" certified seed, from basic seed;
- Second generation or "R2" certified seed, from "R1" certified seed;

2. For hybrid varieties, certified seed result from one sole hybridization (F1) of basic seeds. These are referred to as certified seeds of hybrid varieties.

Article 83: Authorized Generations of Certified Seeds

1. The last authorization under this Regulation shall be the certified seeds of the second generation "R2" which is not likely to produce seeds.
2. However, in case of difficulty of supply of certified seed owing to force majeure in one Member state, the other Member State may authorize the delivery or marketing of seed from the last authorized R2 generation to address the crisis situation. Such seed must comply with the basic standards required for R2 certified seed and shall be referred to as third generation or "R3" seed.
3. The required standards relating to the above characteristics have been defined in this Regulations' document.
4. Breeder and Foundation Seeds should be produced by Qualified Agencies in both Public and Private sector entities.
5. SDCA in consultation with other Regional Stakeholders should develop the different umbrella guidelines/protocols for the different crop groups; i.e., staples, cultivars and in pursuant thereof a national protocol in harmony with ECOWAS system should be developed.

CHAPTER XVII: PRODUCTION CONDITIONS

Article 84: Location of Seed Farm

1. Individual or corporate entity admitted for quality control shall abide by the production zones recommended by the breeder of a given variety.
2. The seed farm shall be accessible for inspection at any time throughout the growing cycle.

Article 85: Cultivated Areas

The minimum and maximum area per crop and per lot as defined in this Regulation shall be the applicable designated area.

Article 86: Number of Varieties and Categories

The number of seed varieties and categories authorized for multiplication on the same agriculture holding shall be determined by the species and in accordance with the standards laid down in the regulations. The numbers of varieties shall not be restricted, as far as testing stations or experimental farms are concerned, on condition that the isolation standards defined in the aforementioned technical agreements are observed.

Article 87: Origin of the Parent Seed
SDCA or any other accredited private body shall ensure that the seed producer or farmer-multiplicator uses only certified parent seed. All seed producers or farmer-multiplicators shall justify the origin of parent seed with documentary evidence such as certification label, Invoice, delivery note or any other appropriate document.

CHAPTER XVIII: PRODUCTION CONTROL

Article 88: Control periods
Control shall be undertaken at all stages of activity, namely: seed production, conservation, packaging, warehousing, transportation, marketing and utilization.

Article 89: Cropping Declaration
1. Before each certification season, individuals or corporate bodies admitted for control shall transmit, prior to cultivation, cropping declaration to the ADCA or any other accredited private body within a reasonable time-frame, failing which the declaration shall be rejected.
2. Any subsequent changes to the cropping declaration shall be reported immediately to the SDCA or any other accredited private entity.
3. A model cropping declaration is presented in Appendix IV these Regulations.

Article 90: Seed Multiplication Contract
1. The seed multiplication contract concluded between the seed producer and one or several out-growers shall include:
a) A commitment by the out-growers to respect existing regulations, allow the quality control agents to inspect his/her crops and not inconvenience neighboring seed farms; and
b) An undertaking by the producer to provide the out-growers with all necessary technical instructions and deliver the parent seeds in good time. A model seed multiplication contract shall conform to the rules of general application of contract law.

Article 91: Control Agents
1. The Control Agent under the authority of SDCA shall keep under surveillance, all seed crops during their growing cycle to ensure compliance with this Regulation.
2. In addition to his/her duty above, the Seed Control Agent shall be mandated by the SDCA to visit seed farms to ascertain their characteristics and cropping condition.

Article 92: Field Inspection
1. Field Inspection work shall be carried out by a technically trained person appointed by SDCA who shall conduct extensive regular field visits and in doing so shall have free access to seed farms. They shall produce and submit field inspection report to SDCA.

2. At least four inspection exercises shall be undertaken in the course of a cropping cycle:
a). First Inspection: Preliminary Inspection
The first inspection shall take place before cropping to ascertain whether or not the land set aside by the producer meets the minimum characteristics and standards required for the species to be multiplied.
b) Second Inspection: Pre-flowering Phase
The second inspection shall take place during the vegetative phase extending from cropping phase to the start of flowering up to emergence of inflorescence.

c) Third Inspection: Flowering Phase
The third inspection shall take place when 50 percent of the plants are in flower; the flowers are open, stigmas are receptive and the spores release pollen;
d) Fourth Inspection
The fourth inspection shall take place a few days before harvest when the seed is sufficiently firm and has attained physiological maturity.

The field characteristics and minimum standards required for each species have been defined in the Appendices of these Regulations.
An additional inspection shall take place during processing to confirm that processing is carried out according to prescribed standards.

Article 93: Factors Determining Number of Inspections
The minimum number of inspections shall be determined in light of the following characteristics:
- Seed farm environment;
- Origin of parent seed;
- Cropping history, Isolation; and
- Crop condition.

All these characteristics have been spelt out in these Regulations.

Article 94: Grounds for Rejection of a Seed Farm
1. The SDCA shall have the right to reject any farm if it fails to meet the required standards set below:
   -Physical purity;
   -Adventive plants
   -Health status; and
   -Varietal purity.
2. The required standards in regard to the above characteristics have been spelt out in this regulation.

Article 95: Inspection Report
1. The inspection shall take place in the presence of the seed grower or an accredited representative of the producer and the Report shall contain observation on the cropping condition of the seed farm used.
2. The report shall contain technical recommendations or directives in accordance with the rules governing the specific specie.
3. A field inspection format shall be prepared and issued by SDCA as per guidelines of the ECOWAS Harmonized Regulations to be used by all field inspectors.

Article 96: Seed Technicians
1. Any seed producer without the necessary technical competence is required to seek the services of a Seed Technician whom he shall engage from the stage of production up to that of sale or distribution.
2. The Seed Technician shall meet the following conditions:
- be accredited by SDCA;
- Upon accepting the offer from the seed Producer, the Seed Technician shall be required to commit the needed professional and ethical time to ensure proper production and to avoid conflict of interest with other Producers.

3. The seed technician shall:

- oversee standing crops;
- be present at each inspection visit;
- tidy up sowing, cropping, harvesting packaging and storage facilities;
- identify seed batch; and
- store seed in appropriate conditions

Any person qualified as Seed Technician must register with the SDCA that will set the criteria necessary for the qualification of Seed Technician.

Article 97: Internal Control

Any producer admitted for control may install an internal crop control structure under the supervision of seed technicians.

Article 98: Abandonment of Seed Farm

A seed farm may be abandoned for climatic or technical reasons at any stage of vegetative process. In that event, the producer shall accordingly inform the SDCA within the shortest possible time and provide the reasons thereof.

Article 99: Classification of Crops

1. The Inspector shall classify the crop on the basis of the outcomes of the observations made during control visits.
2. A crop may be rejected where the technical recommendations or directives issued during previous visits have not been complied with:

a) In the event of rejection, the party concerned must be notified giving the reason(s) for rejection; or

b) Where there has been multiplication of parent seeds imported from non- ECOWAS Member states, classification of the seed farms shall be predicated on the results of varietal control conducted in the laboratory or in the farm.

CHAPTER XIX: QUALITY CONTROL OF SEED LOTS (ALSO KNOWN AS SEED BATCHES)

Article 100: Constitution of Seed Lot

1. All seed lots shall be physically identified either by numbers or letters or a combination of both as the Inspector may determine.
2. With the authorization of SDCA a lot of certified seeds may be constituted from the products of several farms of the same variety of the same parent seed.
3. Notwithstanding the above, with respect to breeder and foundation seeds, a seed lot shall be constituted by the product of one farm.

Article 101: Size of Seed lot

The size of a seed lot shall be defined by SDCA depending on the species.

Article 102: Identification of Raw Seed lots

From harvest to packaging stage, raw seed lots of all categories, whether bagged or loose, shall be provisionally identified by label, harvest tag or other appropriate document to avoid accidental mix up.

Article 103: Sampling

1. To determine the value of seed lots, the SDCA shall take samples of seed for laboratory testing.
2. Sampling shall be carried out in accordance with the international rules developed by the International Seed Testing Association (ISTA).
3. The sample weight for each specie shall be defined in these Regulations.
4. The samples shall be placed in sachets bearing the following information:

. SDCA or accredited private body in Liberia;
. Name of producer;
. Specie and variety;
. Class;
. Lot number;
. Lot weight or number of units in the batch;
. Treatment and products used;
. Sampling date; and
. Name of agent of SDCA or accredited private body responsible for quality control and certification or of the laboratory assistant.

Article 104: Laboratory Control

1. Any seed lot submitted for certification shall be tested in a laboratory designated by the SDCA or an official laboratory under ISTA.
2. Such control shall embrace the five key areas indicated hereunder. The related standards have been defined in these Regulations.

a. Analytical Purity

The laboratory control of analytical purity shall seek to determine:
i. the composition of the analyzed sample; and
ii. the identity of the seed specie and the inert particles that constitute the sample.

b. Water Content

The laboratory control of water content shall seek to determine seed moisture content using appropriate methodology.

c. Germination Test

The germination test shall seek to determine the terminative value of the seeds for sowing in the farm and furnish data for comparison of seed batches.

d. Health Status Test

The health status test shall determine the health of a seed sample through examination to detect diseases occasioned by organisms such as fungi, bacteria and viruses and animal parasites including nematodes and insects.

e. Varietal Purity

The laboratory control of varietal purity shall ascertain the varietal identity of a seed lot and compare its varietal purity with that of a reference sample. Determination of varietal identity may be morphological, physiological, cytological or chemical.

Article 105: Seed Quality Control/Enforcement of Minimum Seed Standard

1. Designation of Seed Analyst and Inspectors

SDCA shall officially appoint and notify Seed Analysts and Seed Inspectors.

2. Identity and Rights of Seed Inspectors

The designated Seed Inspectors shall for the purposes mentioned in Chapter XVIII (Article 90) of these Regulations, have the power at all reasonable time on the production

of his Identity Card to enter any place where he has reasonable grounds believe there are seeds to which these regulations apply:
a) To inspect any seeds found in such place and take samples thereof; and
b) To request any such person to furnish information which he may require for said purposes.

3. Obstruction of Seed Inspectors:
Any person who: (i) obstructs a Seed Inspector in exercising his duties or (ii) fails to comply with any request made by him in exercise of these powers; or (iii) gives any information which he knows to be false shall be guilty of an offence liable on conviction to a fine, de-licensing, a fine stipulated and/or imprisonment as stipulated Section VI of these Regulations.

4. Seizure of Seed or Packages:
An Inspector shall have power to seize or put a stop sale on any seed or package in respect of which an offence is committed under the Regulations.
(a) Investigate any complaint, which may be made to him in writing in respect of any contravention of the provisions of these Regulations.
(b) Maintain a record of all inspections made and action taken by him in the performance of his duties including the taking of samples and the seizure of stocks and submit copies of such record to the office of SDCA.
(c) When so authorized by the Government retain imported containers which he has reason to suspect contain seeds, import of which is prohibited except and in accordance with the provisions of the Regulations.
(d) Institute prosecutions in respect of breaches of the provision of these Regulations.
(e) Perform such other duties as may be entrusted to him by the competent authority.
(f) Where any sample of any seed of any released and/or notified crop cultivar is taken under relevant sections of these Regulations, its cost, calculated at the rate at which such seed is usually sold to the public, shall be paid on demand to the person from whom it is taken.

5. Responsibilities for Standards Enforcement:
Responsibility for judging and enforcing the prescribed limits of seed standards, truth-in-labeling, though rests with the Seed Inspectors, the owners of the seed stock shall be held responsible for ensuring that the seed being offered for sale meets the prescribed limits of seed standards and the seed containers are truthfully labeled.

6. Seed Analysts:
Seed Analysts shall be persons duly authorized under these Regulations and officially recognized for the purposes of testing and analyzing seeds or samples of seeds to which the seed inspectors may from time to time refer.

7. Duties of Seed Analyst
On receipt of a sample for analysis, the Seed Analyst shall:
(a) Ascertain that the mark and the seal or fastening as provided in the seed Regulations are intact and shall note the condition of the seals thereon.
(b) Carry out in an official Seed Testing Laboratory, the analysis of released and/or notified crop or cultivar in the prescribed manner.
(c) Maintain seed testing records and reports.
(d) Analyze the samples according to the provision of these Regulations.

(e) Deliver the copy of the report of the result of the analysis to the specialized seed quality control persons and owner of the seed.

8. Certificate of Analysis:
A Certificate duly signed by an Analyst stating that he has examined any seeds or samples thereof referred to him by an Inspector shall be prima facie evidence of the facts contained in the certificate.

Article 106: Laboratory Reports
1. All test results shall be included in a seed analysis report issued by the competent national seed testing laboratory that the SDCA may designate.
2. As regards breeder and foundation seeds, the outcomes of such control shall serve to confirm or modify the classification of the seed lots still in stock and the progeny of the controlled lots.
3. The sample used for quality control shall be taken in accordance with ISTA standards and conserved by SDCA.
4. A posteriori control shall be conducted in accordance with a protocol defined by SDCA and the national research institutions concerned.
5. Quality control during seed marketing shall be carried out by agents of SDCA.

CHAPTER XX: CONDITIONING

Article 107: Seed Treatment
Seeds presented for certification shall be treated in a seed conditioning plant accredited by SDCA in which they have been produced.

Article 108: Use of Sorting Sieve
Seed cleaning lines in accredited conditioning plants shall use at least one set of three grid sieve, with top, middle and bottom sieves, selected according to the species to be conditioned.

Article 109: Maintenance of Facilities
The conditioning facilities shall be cleaned after every use to avoid accidental mix up.

CHAPTER XXI: PACKAGING

Article 110: Types of Packaging
The types of packaging used shall be those authorized by these Regulations. The packaging shall be
clean, resistant and appropriate for seed protection and viability.

Article 111: Marking of Packaging
1. All seed lots properly packed in compliance with these Regulations must be marked with a number and/ or symbol approved by SDCA.
2. The package markings shall indicate in clear and easily legible print:
(a) Name and address of the producer or distributor
(b) Logo or trade name, where these exist;
(c) name of the species and of the variety as listed in the WACPSV;

(d) Category, generation and production cycle;
(e) Net weight;
(f) Certification label; and
(g) Name of the product used for treatment.

CHAPTER XXII: SPLITTING-REPACKAGING

Article 112: Type of Packaging
All seed lots that have been assembled and labeled, shall be split and/or repackaged in the presence of a Representative of the SDCA to ensure compliance, failing which the seed lots concerned shall be rejected.

Article 113: Labeling
In the case of splitting and/or repackaging, the new labels shall bear the same particulars as the original labels, with additional annotation indicating that the lot has been repackaged.

CHAPTER XXIII: STORAGE

Article 114: State of Storage Facilities
1. All seed storage facilities must have an appropriate temperature and humidity. They shall be kept tidy and well aerated for effective seed conservation.
2. Storage facilities must also be regularly disinfected.

Article 115: Conditions for Bag Storage
Seed bags shall be placed on duckboards or pallets. They must not be kept in contact with the ground or with walls. Seed lots shall be arranged in a way that allows a passage between piles of seed to facilitate control and sampling.

Article 116: Conditions for Transportation
Seeds shall be transported in such conditions as can maintain their intrinsic quality.

CHAPTER XXIV: CONTROL MODALITIES

Article 117: Model Administrative Documents
The SDCA shall put up additional Administrative documents, as required, to be used for seed quality control in Liberia.

Article 118: Enabling Technical Regulations
Additional documents issued by SDCA, as required, relating to enabling technical regulations, shall complement the modalities of seed quality certification and control in Liberia.

SECTION III: SEED CERTIFICATION

CHAPTER XXV: CERTIFICATION, ELIGIBILITY CONDITIONS AND CERTIFICATION

Article 119: Object of Seed Certification
The main object of seed certification is to maintain high quality seeds of crop varieties so produced, handled and made available for distribution as to ensure proper identity and genetic purity.

Article 120: Responsibility for Seed Certification
i) The Seed Development and Certification Agency of the Ministry of Agriculture, (SDCA), shall certify seeds in Liberia.
ii) SDCA shall apply general and specific rules and regulations as well as field and seed standards to a crop grown for the purpose of producing seed certified in Liberia.
iii) The standards for field and seed certification of a crop issued by the Economic Community of West African States shall apply to the certification of a crop grown in the country, where field and seed certification standards do not exist in the country in respect of that crop.

Article 121: Certification
All plant seed produced for the purpose of marketing shall be certified in accordance with the provisions of these Regulations.

Article 122: Eligibility
Certification shall be applicable only to seed lots from farms normally eligible for control and for the varieties listed in the national catalogue or WACPSV.

Article 123: Certification Fee
1. Any service in respect of certification, be it for control in the field or in laboratory, shall be subject to certification fee, which shall be paid to the SDCA.
2. The fee amount, payment modalities and the conditions for allocation of the proceeds shall be determined by the SDCA.

Article 124: Procedure of Seed Certification
All seeds, whether locally produced or imported, must be inspected by the Seed Inspector to ensure that it meets the market requirement under this Chapter after which SDCA shall grant a certificate indicating its viability and quality.

1. Phases of Certification:
Certification shall be completed in the following six broad phases:
a) Receipt and scrutiny of applications for certification from the seed producers;
b) Verification of seeds source;
c) Field inspection to verify conformity to the prescribed field of standards;
d) Inspection at post-harvest stages, processing and packaging;
e) Seed sampling and testing, genetic purity/ health testing if necessary, in order to verify the prescribed standards; and

f) Granting certificate to seed lots and affixing the certification tag and seal to the containers.

2. Established Seed Source:
The individual intending to produce seed under certification shall submit one or more relevant evidence such as certification tags, seals, labels, seed containers, purchase/sale or during first inspection of the seed crop, in order to confirm if the seed used for raising the crop has been obtained from source approved by it. This application also applies to parents in seed production involving two parent lines.

3. Field Area for Certification:
There is no minimum or maximum limit for the area to be offered by a person for certification, provided the certified seed production meets all the prescribed requirements.

4. Unit of Certification:
For the purpose of field inspection, the entire area planted under seed production by an individual shall constitute one unit provided:
a) The entire area is under one cultivar;
b) It does not exceed ten (10) hectares;
c) It is not divided into fields separated by more than fifty meters between them;
d) It is planted with or is meant to produce seed belonging to the same class and stage in the generation chain;
e) The crop over the entire area is more or less the same stage of growth so that observations made are representative of the entire crop;
f) The entire area planted, by and large, responds to the quantity of seed reported to have been used; and SDCA's permission had been obtained to cover a large area by economizing on seed rate if that be the case;
g) Raised strictly as a single crop and never a mixed crop;
h) Not so heavily and uniformly lodged that more than one third plant population is trailing on the ground leaving no scope for it to stand up again, thus making it impossible for SDCA or the Field Inspector to inspect the seed crop at the appropriate stage of growth in the prescribed manner; and
i) As far as possible, so maintained as to show adequate evidence to good crop husbandry, thereby improving the reputation of certified seed.
3. The Seed Certification and Standards Unit and the Variety Registration and Release Unit of SDCA shall discharge the functions of the seed certification, quality control and seed law enforcement.
4. The SDCA shall be the agency to implement the Seed Regulations and all laws or rules there under only for the purpose of seed certification.

Article 125: Mandatory Labeling
All seeds intended for marketing and/or production must be clearly labeled bearing the SDCA certification indicating the date of manufacture, expiration, and other information required under these Regulations. Failure of any seed producer or importer to label his seed shall subject him to a fine pursuant to Section VI of this Regulation. Further, any packaging containing certified seeds shall bear a certification tag issued by the SDCA. The certification label shall be different from the seed producer's label as provided for in this regulation.

a. The SDCA shall have the sole authority to print, distribute and affix tags. This responsibility may, however, be delegated to an accredited body.
b. Certification labels shall be affixed in a way as to ensure inviolability of the package.
c. A certification tag identical to that affixed to the package shall be placed inside the package, where such package does not bear printed specification of seed batch.
d. Model certification tag shall be presented in the enabling regulation.
e. Responsibility for marking/labeling and sealing.

i). When seed is offered for sale, each container shall be marked or tagged in the manner hereinafter specified. The person whose name appears on the mark or label shall be responsible for the accuracy of the information in the unopened original container; provided, however that such person shall not be responsible for the accuracy of the statement appearing on the mark or tag if the seed is removed from the original unopened container, or shall not be responsible for the accuracy of the germination statement beyond the date of validity indicated on the mark or label.

ii) Contents to be specified on every mark or tag shall contain correct Statement of the name of the crop/cultivar, minimum limits of germination and physical purity, net weight, date of test, validity period and name of the producer.

Article 126: Colors of Seed Certification

The colors of certification labels shall depend on seed category. The authorized colors shall be:
a. white with diagonal violet stripes-for parent material and breeder seeds;
b. white for foundation seeds;
c. blue for R1 or first-generation certified seeds; and
d. red for "R2" or second-generation certified seeds and "F1" hybrid seeds.

Article 127: Specifications on Certification Labels

The top side of certification Tag or label shall bear the following indications:
(a) Name of specie, followed where appropriate by cropping suitability or varietal type; for example:

Specie: rain fed rice or irrigated rice;
Hybrid maize or composite maize;

(b) Name of variety as listed in the national seed catalogue and WACPSV;
(c) Lot number;
(d) Size;
(e) Minimum germination capacity;
(f) Year and month of harvest;
(g) Minimum genetic purity;
(h) Weight;
(i) Reference to these Regulations;
(j) Name of official quality control and certification service or body.
(k) The seal of the SDCA shall be considered as a guarantee of the authenticity of the certification label;
(l)The back side of the certification tag shall bear no annotation; and
(m) The number of certification labels shall be strictly limited to the number of units that make up each certified lot.

Article 128: Withdrawal of Certification Label

1. The SDCA shall withdraw and recover all certification labels already issued, where a seed lot has been declassified or rejected after testing, for reason of non-compliance with the set standards.
2. The seed lot in question shall no longer be used or marketed.
3. A penalty shall be levied by the SDCA for such violation.

CHAPTER XXVI: CERTIFICATION ATTESTATION AND EXEMPTIONS

Article 129: Issuance of Certification Attestation

1. Certification attestation is an official document issued in respect of a seed batch by SDCA or any other accredited private body at the request of any person wishing to use the lot in question.
2. A model certification attestation is attached in Appendix 5 of these Regulations.

Article 130: Exceptional Issuance of Certification Labels

1. Authorization of non-conforming breeder and foundation seeds

The SDCA may exceptionally issue certification labels for breeder or foundation seeds, germination capacity of which falls short of the required standards. In such case, the real germination capacity shall be indicated on the label.

2. Authorization of non-conforming seeds

The SDCA may exceptionally issue, in the case of emergency and/or for dormant seeds, certification labels for non-conforming lots, after preliminary and summary biochemical evaluation of viability.

CHAPTER XXVII: CARRY-OVER SEED LOTS

Article 131: Carry-Over Seed Lots

1. Certified seed lots shall be considered as carry-over lots counting from the starting date of the new planting season following the harvest season. Such lots shall be declared to SDCA.
2. Such seed lots shall be examined to ascertain germination capacity by the designated laboratory or any other accredited laboratory. The labels of non- conforming lots shall be withdrawn.

CHAPTER XXVIII: MUTUAL RECOGNITION

Article 132: Mutual Recognition of Certification

Seed certified by the SDCA in accordance with the provisions of these Regulations and other international standards shall for all intents and purposes be recognized as such by all other ECOWAS Member States.

SECTION IV: SEED MARKETING

CHAPTER XXIX: MARKETING BY PRODUCER-DISTRIBUTORS AND DISTRIBUTORS

Article 133: Varieties of Seeds Marketed in the Regional Market

1. Only seed registered or hereafter to be registered in the national seed catalogue or West African Catalogue of plant Species and Varieties shall be marketed in Liberia.
2. No one shall sell, keep for sale, and offer to sell any seed of any crop/cultivar to which these Regulations apply unless the seeds are:

a) Identified as to its crop/cultivar, field tested and registered;

b) Conform to minimum standards of germination, and physical purity as specified;

c) Packaged and marked/labeled and sealed in the manner prescribed under the Seed Rules and Regulations.

3. Production, Processing and Marketing of Seeds:

The commercial seed trade of certified seed shall be performed only by registered producers, processors and seed companies/ individuals who are registered with the SDCA.

4. General Obligations of Registered Seed Enterprises.

a) Every person selling, keeping for sale, offering to sell, bartering or otherwise supplying any seed of notified crop/cultivar under schedule shall keep over a period of two years complete records of such lot of seed sold except that any seed sample may be discarded within one year after the entire seed lot represented by such sample has been disposed of.

b) Be required to be conversant with and to observe the various provisions and conditions of these Regulations and such other provisions of the Seeds Regulation as are or maybe relevant.

c) Furnish the Seed Inspectors with all the required information regarding aspects of their seed business, including obligations to permit entry by the inspectors into the farm and premises of the business to facilitate suitable control and cooperation with such a control process.

d) Not to take or permit deceiving actions, causing adverse influence on a decision at any stage or in any respect of their seed business.

5. Responsibilities of Registered Seed Enterprises.

a) The person to whom the certificate is granted under this Regulation shall attach a certification tag to every container of the Certified seed and shall follow the provisions in respect of marking or Labeling provided herein under these Regulations.

b) The certification tag shall contain the specified particulars, and the color of the certification tag which shall be white for foundation seed and blue for certified seed;

c) Unlabeled or Falsely Labeled Seed:

No person shall sell, offer or expose for sale unlabeled, falsely-labeled, tagged or untagged seeds of a released and/or notified crop/cultivar or hybrid;

d) A person who offers agricultural seeds of a released or notified crop/cultivar for sale shall ensure that the label affixed to the container accurately describes the seeds contained therein;

e) Except for demonstration purposes, no person shall offer for sale, agricultural seeds of a released and/or notified crop/cultivar in an open container;

f) When the seed of a released and/or notified crop/cultivar is offered for sale, each container shall be marked or labeled in the manner as specified;

g) The person whose name appears on the mark or label shall be responsible for the accuracy of the information required to appear on the mark or label;

h) There shall be specified on every mark or label the specified information such as name of the crop/cultivar, and minimum limits of germination and physical purity;

6. Trade Marks and Registered Brands/Proprietary Rights on Trademarks:

a) The name of cultivars, trademarks and registered brands shall be of acceptable descriptive categories for the purpose of labeling seed containers. Once this is registered, they shall not be changed by any person, unless the SDCA so authorized for acceptable reasons.

b) Any person who contravenes any of the above provisions shall be guilty of an offence and punishable in accordance with the stipulations of these Regulations, local laws and copyright regulations.

Article 134: Stores Accounting

All seed producer-distributors and distributors shall keep detailed account of stock entries and withdrawals in a ledger that shall be available for checking and inspection at all times by the SDCA or any other accredited private body.

CHAPTER XXX: EXPORT – IMPORT

Article 135: Procedure

1. Without prejudice to ECOWAS regulations on external trade, the import and export of conventional seeds shall be subject to prior declaration to the SDCA or Seed Inspector as the case may be.
2. The Importer or Exporter shall provide the following information regarding the Seed lot:
   - Individual or corporate name;
   - Name and address of consignee or supplier;
   - Species and variety as registered in the national catalogue or the WACPSV;
   - Category and generation;
   - Lot number;
   - Declared batch weight;
   - Number of packages;
   - Unit weight of packages;
   - Number of labels specifying first and last figures; and
   - Chemical treatment with the name of active ingredients used.
3. The import and export of unconventional seeds shall be governed by the Legislation applicable in Liberia.

Article 136: Issuance of International Certificate

Member States' national seed testing laboratories accredited by the ISTA shall be authorized to issue an International Certificate where this is required.

Article 137: Phytosanitary Certificate

1. All seed export and import shall be accompanied by a phytosanitary certificate issued by the SDCA or the Plant Quarantine Officer responsible for plant protection in the Country of origin of the seed.
2. For the purpose of issuance of phytosanitary certificate, Liberia and the other Member States shall periodically conduct surveys and exchange information with a view to drawing up comprehensive inventories of the pests existing in the Member States.

3. Such inventories shall serve to update the list of quarantine and non-quarantine organisms.
4. The list of quarantine and non-quarantine organisms drawn up for the purpose of inter and intra-Community trade and the modalities of seed phytosanitary control shall be determined by ECOWAS Commission.

Article 138: Suspect Seed Lots
1. Any imported or exported seed lot that arouses suspicion of fraud or falsification shall be considered as suspect and provisionally impounded.
2. A sample thereof shall be taken by the SDCA and transmitted to the national seed testing laboratory for investigation of fraud and falsification. Where the results fail to match the specifications on the documents accompanying the seeds, the seed lot shall be seized by the agents or officers of the criminal police or the sworn agents of the customs and plant protection authorities. Thus, utilization of the seeds in such lot shall not be authorized; and the labels shall be withdrawn and destroyed.

Article 139: Lots in Transit
1. Any seed lot transiting the territory of an ECOWAS Member State shall be declared to the SDCA by the individual or corporate entity responsible for the transit.
2. Information concerning the consignee and the country of destination shall be communicated to the SDCA and to the official Plant Protection services by the aforementioned individual or corporate entity.
3. Transiting seed lots shall be accompanied by a phytosanitary certificate indicating the source and destination of the seeds. The lots in question shall not be subject to quality control in the transit countries.

SECTION V: DISPOSAL

Article 140: Disposal:
Any seed or agricultural products as well as chemicals found to have expired or fail to meet the required standards under these Regulations shall be disposed of in accordance with guidelines set under the public health and EPA regulations.

SECTION VI: SANCTIONS

Article 141: Sanctions for Infringement
1. In addition to the various provisions supra the following shall constitute breaches of the provisions of these Regulations and other laws of Liberia depending on the nature of the violations:
(a) Production of seeds without professional card;
(b) Marketing of seeds without registration;
(c) Misleading information on seed labeling, willful modification or alteration of Labeling and the use of any trickery to mislead third parties as to the quality of the seeds;
(d) Distribution, for animal or human consumption, of seeds treated with substances dangerous to human or animal health and, thus, unfit for consumption;
(e) Failure to keep proper ledger as laid down in this Regulation;
(f) Import or export of conventional seeds without prior declaration;

(g) Import or export of unconventional seeds in violation of applicable legislation;
(h) Obstruction of official inspection or control activities;
(i) Non-compliance with the conditions of admission for control;
(j) Fraud or attempted fraud in the utilization or marketing of seeds transiting ECOWAS Member States; and
(k). Sale of prescribed seed under different name;
Any person who sells or sows any seed under a description other than its varietal or prescribed name commits an offence under this Regulation
(l). Altering official seed records.
Any person who, without lawful authority, alters, defaces or removes any register, roll, index or other official markings, certificate, report, invoice, account, label, note, docket or mark placed upon a container or other document prescribed, issued, furnished or kept under this regulation commits an offence under this Regulation and shall be punishable by fines or imprisonment depending on the gravity of the offence.

2. The Government of Liberia shall take all appropriate measures to impose sanctions for any breach of the provisions of these Regulations.

Article 142: Empowerment and Powers of Control Agents
1. The duties and functions of SDCA, its various committees as well as the inspectorates shall be strictly observed for the effective implementation of these Regulations.

2. The agents shall be accorded powers of inspection and investigation to enable them to, among other things:
(a) enter the professional premises including compounds and buildings meant for seed distribution as well as seed warehouses, storerooms and other storage places and depots;
(b) access and cause to be transmitted to them all documentation relating to the operations of seed producers and seed distributors;
(c) inspect installations, facilities, works, vehicles, devices and tools used in Seed related activities; and
(d) collect samples and ensure that these samples are representative enough and leave open the possibility of alternative evaluation.

3. Inspections during seed production and marketing shall be carried out in the presence of the producer or the distributor or their representative.

SECTION VII: GUARANTEES FOR PERSONS ADMITTED FOR CONTROL AND FOR DISTRIBUTORS

Article 143: Scope of the Guarantees
Individuals or corporate bodies subject to compliance control and inspection at all stages of seed production, certification and marketing shall be accorded the following guarantees:
(a) confidentiality of the information they provide, since the individual or corporate entity concerned is bound to keep the secrets of their profession;
(b) representativeness of the samples used as basis for contested administrative measure;
(c) right to resort to alternative opinion and to lodge an appeal according to applicable procedures;

(d) right to be present or be represented during control exercise; and
(e) right to demand disclosure of documents such as notification of measures taken against their person, grounds for such decision, receipts for samples and seed seizure reports, laboratory test results, their statements and any other document and the decisions that affect them.

SECTION VIII: MISCELLANEOUS PROVISION

Article 144: Forms and Orders

1. SDCA shall prepare and issue forms, as per guidelines established under ECOWAS Harmonized Seed Regulations for use by the following:
(a) Field Inspectors for conducting field inspections;
(b) Seed inspectors for enforcement of National Minimum Seed Standards; and
(c) Seed analysts for conveying sample laboratory test result under these Regulations.
2. Records: A person carrying on the business referred to, shall maintain the following records namely:
    a.) Stock record of Seeds; and
    b.) Record of sales of seeds.
3. Contravention and Penalties: Any person who contravenes or fails to comply with any provision of these regulations including acts of omission shall be guilty of an offense against these seed rules and regulations and upon conviction, shall be liable to a penalty not exceeding stipulation set in Section VI of these Regulations.
4. Appeals: Any persons aggrieved by any decision made under these Regulations.
a.) May appeal to SDCA or the Minister of Agriculture.
b.) Each appeal shall accompany a statement of grievances along with the documentary evidences, names of person for written or oral evidences, and shall deposit a fee as prescribed by SDCA.
c.) SDCA shall set up for each appeal, an Appellate Committee which shall include:
    (i) The aggrieved person or his representative; and
    (ii) A Seed Grower Association representative
d.) The decision taken on the appeal on the recommendation of the appellate committee shall be final subject to approval from the Minister of Agriculture.
5. The fees for registration of seed enterprises, specific seed enterprises, specific seed certification and quality control services, and appeal to be provided, shall be prescribed by the SDCA and payable by the beneficiaries under these Regulations.

SECTION IX: FINAL PROVISION

Article 145: Publication

These Regulations shall be published in the official gazette within thirty (30) days following signature by the Minister.

Article 146: Entry into Force

These Regulations shall enter into force upon approval by the Minister and subsequent to its publication.

Signed _____ Minister of Agriculture

April 15, 2021
Date

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APPENDICES

APPENDIX I: IMPLEMENTING REGULATIONS FOR CEREAL SEEDS (MAIZE, MILLET, RICE AND SORGHUM)

TITLE 1 - GENERAL PROVISIONS

CHAPTER 1 - SCOPE

Article 1: Scope of Appendix
This technical agreement annex shall apply to the quality control and certification of cereal seeds (maize, millet, rice and sorghum) in accordance with Article 58 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedlings in the ECOWAS zone.

CHAPTER II: CATEGORIES OF SEEDS

Article 2: Categories of Seeds
The categories of cereal seeds under consideration are the following: a) pre-basic seeds, b) basic seeds, c) certified seeds.

CHAPTER III: ADMISSION FOR CERTIFICATION

Article 3: Categories of Admission
Admissions for control may be granted separately or concurrently for farmers accredited for the following categories of seeds: a) producer of pre-basic seed, b) producer of basic seed, c) producer of certified seed,

TITLE II - CONTROL AND CERTIFICATION OF MAIZE SEEDS (*Zea mays* L)

CHAPTER IV: CONTROL OF CROPS

Article 4: Types of Maize Seed Crop
The multiplication of maize seeds shall apply to parental lines, composites and hybrids.

Article 5: Number of Field Inspections
1. There shall be at least three (03) inspections to control the quality of the crop under the supervision of a control agent as outlined in Article 33 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedlings in the ECOWAS zone:
a) The first one, before flowering to check isolation and purity;
b) The second one, at the beginning of flowering to check the level of purity;
c) The third one, at the end of flowering to check the level of male sterility.

2. Such inspections are mainly aimed at checking the origin of plant material, the field background, farming practices, compliance with isolation standards, the count of off-types, the presence of diseases and insects.

Article 6: Notification of Sowing

Any establishment of a seed crop shall be subject to a notification using a form issued for that purpose. Such notification should be forwarded to the official control and certification service before the sowing of crops. Failing which, the crop shall be rejected by the official control and certification service.

Article 7: Origin of the Parent Seed

The producer who establishes a seed field should be able to justify the origin, quantity, variety and category of the parent seed, by presenting procurement documents like certificates, invoices or delivery slips and labels. Such documents shall be presented to the control agent during his first visit. If the producer cannot provide such documents, the crop shall be rejected.

Article 8: Preceding Crop

The plot must not have carried, during the previous crop year, any maize crop, unless it is the same variety that is not a hybrid and that the plot has been sowed with certified seeds of the same generation or a previous generation. In the case of mature irrigated plots, this rule cannot be applied. In such case, after the prior-irrigation of the seed increase plot, it shall be necessary to destroy all re-growths through tillage operations three weeks before the sowing. The plot should be clear of any maize re-growth.

Article 9: Isolation

1. Minimum isolation distances shall vary according to the category and variety of seeds to be produced as in Table 1 relating to the criteria and standards for field control of maize seeds. However, the official control and certification service may grant derogations in certain cases where the contaminating agent has grains of the same texture and colour as the variety, subject to the multiplication or the female parent when it is a hybrid.
2. Plots of hybrids are bordered on all sides by at least two rows of pollen parent. In order to avoid any accidental contamination, lines of the pollen parent in a maize seed multiplication process should be marked unless the two parents are morphologically very different in growth.

Article 10: Varietal Purity

The roguing of plots must be very meticulous. All off-types shall be eliminated as soon as possible before the release of pollen. Standards of variety purity are spelt out in Table 1 relating to the criteria and standards for seed control of maize seeds.

Article 11: Pollinating Plots of Hybrids

Pollinating Plots of hybrids shall be rejected by the official control and certification service when: a) the synchronization of parents' flowering is inadequately ensured, b) the male parent population is considered insufficient, c) the release of pollen is deemed defective.

Article 12: Detasseling

1. All plants of the female parent in a hybrid shall be detasselled as soon as male tassels emerge and before the release of pollen. This step shall also apply to panicles of existing tillers.

2. Fragments of male panicles as concerns inadequately detasseled plants shall be considered as releasing pollen when they represent a total length of 5 cm. All plucked panicles must be removed from the field and destroyed.

Article 13: Harvest
The harvest of a maize seed plot by the producer shall meet the following conditions:
a) for composites: before harvesting the plot, the product of the border rows shall be eliminated from the seed lot;
b) for hybrids: the male and female parents shall be harvested separately. The male parent shall be harvested first, together with the border rows and set aside for consumption. The seed shall be gathered from the female parent;
c) Equipment must be thoroughly cleaned between the harvest of two different varieties or that of male and female parents of a hybrid so as to prevent any mixture.

Article 14: Rejection of a Crop
A maize seed plot shall be rejected by the official control and certification service if the standards in Table 1 below are not met:

Table 1 – Criteria and standards for field control of maize seeds

Factor	**Breeder seed**		**Foundation seed**			**Certified seed**	
	PL	**C**	**PL**	**H**	**C**	**H**	**C**
Maximum Off-types (%)	0.1	0.3	0.1	0	0.5	1	1
Maximum Diseased plants (%)	0.05	0.05	0.10	0.10	0.10	0.10	0.10
Minimum isolation (m)	400	400	400	600	400	300	200

CHAPTER V: CONTROL OF LOTS

Article 15: Size of Lots
The composition of maize seed lots shall comply with ISTA-developed set of rules. The maximum weight of a maize seed lot shall be 40 tons.

Article 16: Sampling
Sampling shall be carried out in compliance with the ISTA rules by agents of the official control and certification service or by any authorized institution.

CHAPTER VI: CERTIFICATION

Article 17: Certification of Maize Seeds
Maize seed lots submitted for certification must meet all regulatory requirements and especially the standards outlined in Table 2 below:

Table 2 – Types and standards for laboratory testing for maize seeds

Factor	Breeder Seed	Foundation Seed	Certified Seed (R1)	Certified Seed (R2)	Hybrid
Minimum varietal purity (%)	99.9	99.9	99.7	99.0	99.8
Minimum specific purity (%)	98.0	98.0	98.0	98.0	98.0
Inert matter (%)	2	2	2	2	2
Maximum seeds of other species (%)	0.2	0.2	0.2	0.2	0.2
Noxious weed seeds/kg	0	0	0	0	0
Minimum germination (%)	90	90	90	90	90
Maximum moisture content (%)	12	12	12	12	12

TITLE III - CONTROL AND CERTIFICATION OF MILLET SEEDS (*Pennisetum glaucum* L.)

CHAPTER VII: CONTROL OF CROPS

Article 18: Number of Field Inspections

1. All millet seed growing plots shall be inspected during growth by a control agent as enshrined in Article 33 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedling in the ECOWAS zone. There shall be a minimum of three inspections:

a) the first one before flowering to check isolation and purity;

b) the second one, at the beginning of flowering to check purity;

c) the third one at the end of flowering to check purity.

2. Such inspections shall be aimed at verifying the origin of the plant material, the field background, farming practices, compliance with isolation standards, the count of off-types, the presence of diseases and insects.

Article 19: Notification of Sowing

All establishments of seed crops shall be subjected to a notification using a form issued for that purpose. Such notification must be forwarded to the official control and certification service before the sowing of crops. Failing this, the crop shall be rejected by the official control and certification service.

Article 20: Origin of the Parent Seed

The producer who establishes a seed crop should be able to justify the origin, quantity, variety and category of the parent seed, by presenting procurement documents like certificates, invoices or delivery slips. Such documents shall be presented to the control agent during his first visit. If the producer cannot provide the documents, the crop shall be rejected

Article 21: Preceding Crop
The plot must not have carried, during the previous crop year, any millet crop, unless it is the same variety and that the plot has been sowed with certified seeds of the same generation or a previous generation. In the case of mature irrigated plots, this rule cannot be applied. In such case, after the prior irrigation of the seed increase plot, it shall be necessary to destroy all regrowths through tillage operations three weeks before the sowing. The plot should be clear of any millet regrowth.

Article 22: Isolation
Minimum isolation distances shall vary according to the category of seeds and the size of plots as outlined in Table 3 relating to the criteria and standards for field control of millet seeds.

Article 23: Crop Conditions of Seed Fields
The poor state of a seed field may be a cause for rejection by the official control and certification service if the following criteria are not met:
a) Varietal purity
Impurities, off-types and suspect plants must be eliminated as soon as possible by the producer before the release of pollen. For every control, the tolerated maximum level of off-types is outlined in Table 3 relating to the criteria and standards for field control of millet seeds.
b) Weeds
A multiplication plot shall be rejected by the official control and certification service when totally invaded by weeds and especially by plants whose seeds that are difficult to separate during conditioning, such as *Sorghum halepense*.
c) Health status
All millet fields must be free of seed-transmissible dangerous pathogens. Millet ears attacked by head smut may be accepted if crops are treated with fungicide.
d) Rejection of a crop
A millet seed crop shall be rejected by the official control and certification service when the standards contained in Table 3 below are not met.

Table 3 – Criteria and standards for field control of millet seeds

Factor	**Breeder Seed**	**Foundation Seed**	**Certified** Seed
Maximum Off-types (%)	0.10	0.10	0.60
Maximum diseased Plants (%)	0.05	0.05	0.10
Isolation (meters)	1000	1000	300

CHAPTER VIII: CONTROL OF LOTS

Article 24: Size of Lots
The composition of millet seed lots shall comply with ISTA-developed set of rules. The maximum weight of a millet seed lot shall be of 10 tons.

Article 25: Sampling
For official testing, seed lot sampling shall be carried out in compliance with ISTA rules and be conducted by agents of the official control and certification service or any other authorized institution.

CHAPTER IX: CERTIFICATION

Article 26: Certification of Millet Seeds
Millet seed lots proposed for certification must meet all regulatory requirements and especially standards outlined in Table 4 below:

Table 4 – Types and standards for laboratory testing of millet seeds

Factor	**Breeder Seed**	**Foundation Seed**	**Certified Seed (R1)**	**Certified seed (R2)**
Minimum Varietal purity (%)	99.9	99.9	99.7	99.0
Minimum specific purity (%)	98.0	98.0	98.0	98.0
Inert matter (%)	2	2	2	2
Maximum number of seeds of other species/%	10 seeds / kg	10 seeds / kg	0.1	0.1
Noxious weed seeds/%	10seeds / kg	**10 seeds / kg**	**0.1**	**0.1**
Minimum germination (%)	75	75	75	75
Maximum moisture content (%)	12	12	12	12

TITLE IV – CONTROL AND CERTIFICATION OF RICE SEEDS (*Oryza sativa* L.)

CHAPTER X: CONTROL OF CROPS

Article 27: Number of Field Inspections
1. All rice seed producing plots shall be inspected during growth by a control agent as enshrined in Article 33 of Regulation C/REG.4/05/2008 to harmonize rules governing the

control and certification of plant seeds and seedling in the ECOWAS zone. There shall be a minimum of three inspections: a) the first one before flowering to check isolation and purity; b) the second one, at the beginning of flowering to check purity; c) the third one at the end of flowering to check purity

2. Such inspections shall be aimed at verifying the origin of the plant material, the field background, farming practices, compliance with isolation standards, the count of off-types, the presence of diseases and insects

Article 28: Notification of Sowing

All establishments of seed crops shall be subjected to a notification using a form issued for that purpose. Such notification must be forwarded to the official control and certification service before the sowing of crops. Failing this, the crop shall be rejected by the official control and certification service

Article 29: Origin of the Parent Seed

The producer who establishes a seed crop should be able to justify the origin, quantity, variety and category of the parent seed, by presenting procurement documents like certificates, invoices or delivery slips. Such documents shall be presented to the control agent during his first visit. If the producer cannot provide the documents, the crop shall be rejected

Article 30: Preceding Crop

The plot must not have carried, during the previous crop year, any rice crop, unless it is the same variety and that the plot has been sowed with certified seeds of the same generation or a previous generation. In the case of mature irrigated plots, this rule cannot be applied. In such case, after the prior irrigation of the seed increase plot, it shall be necessary to destroy all volunteer plants through tillage operations three weeks before the sowing. The plot should be clear of any rice regrowth.

Article 31: Isolation

Any field producing seeds of a rice variety shall be separated from any other field of a different variety by a minimum distance based on its category. The distances are outlined in Table 5 relating to the criteria and standards for field control of rice seeds.

Article 32: Crops Condition of Seed Fields

The crops condition should make it possible to properly ensure the field rating otherwise, it shall be rejected. Similarly, in case of lodging higher than 50% of the plot area, the crop shall be rejected. The poor state of a seed field may be a cause for rejection by the official control and certification service if the following criteria are not met.

a) Genetic purity:

The presence of off-types beyond a certain threshold may cause a field to be rejected. These may be: - plants of other varieties, - natural hybrids, - disjunctions, - rogue plants. All off-types must be removed and taken out of the field by the producer.

b) Analytical purity:

The presence of specific impurities in a rice seed field shall not necessarily be cause for rejection. However, their presence must be carefully highlighted and the producer urged to eliminate them.

c) Weeds:

Weeds noxious to rice must be eliminated by the producer, especially those whose grains that are difficult to eliminate during conditioning or that have strong invasive capacity, such as wild rice *Oryza longistaminata, Rottboellia exaltata*, Eurphorbiaheterophylla, Echinocloacolonnum and red rice types.

d) Health status

A field that is widely infected by diseases that reduce the value use of seeds, especially the blast disease, shall be rejected by the official control and certification service.

e) Rejection of a crop

The rejection of a crop shall be decided by the official control and certification service if the crops standards outlined in Table 5 below are not met.

Table 5 – Criteria and standards for field control of rice seeds

Factor	**Breeder seed**	**Foundation Seed**	**Certified Seed**
Minimum isolation distance (m)	10	5	3
Minimum isolation from other varieties susceptible to diseases (m)	100	100	100
Other varieties (plants)	0	0	1/1000
Red rice (white variety) (plants)	0	0	1/100000
Disease plants (%)	0.01	0.01	0.5
Noxious weeds (%)	0	0	0
Maximum number of plants of other cultivated species difficult to separate (%)	0.01	0.01	0.02
Maximum off-types (%)	0.05	0.05	0.30
Maximum dangerous adventives (%)	0.01	0.01	0.02

CHAPTER XI: CONTROL OF LOTS

Article 33: Size of Lots

The composition of rice seed lots shall comply with ISTA-developed set of rules. The maximum weight of a rice seeds lot shall be of 25 tons.

Article 34: Sampling

For official testing, seed lot sampling shall be carried out in compliance with ISTA rules and be conducted by agents of the official control and certification service or any other authorized institution

CHAPTER XII: CERTIFICATION

Article 35: Certification of Rice Seeds

Rice seed lots submitted for certification must meet all regulatory requirements and especially standards outlined in Table 6 below.

Table 6 – Types and standards for laboratory testing of rice seeds

Factor	Breeder Seed	Foundation Seed	Certified Seed (R1)	Certified seeds (R2)
Minimum varietal purity (%)	99.9	99.9	99.7	99.0
Minimum specific purity (%)	98.0	98.0	98.0	98.0
Minimum germination (%)	80	80	80	80
Maximum moisture content (%)	12	12	12	12
Inert matter (%)	2	2	2	2
Maximum number of seeds of other species (%)	10 seeds/kg	10 seeds/kg	0.10	0.10
Maximum number of noxious weed seeds (%)	10 seeds / kg	10 seeds / kg	0.1	0.1
Maximum number red rice	0	0	2 seeds/ 500g	2 seeds/ 500g

TITLE V – QUALITY CONTROL AND CERTIFICATION OF SORGHUM SEEDS (*Sorghum bicolour* L.)

CHAPTER XIII: CONTROL OF CROPS

Article 36: Number of Field Inspections

1. All sorghum seeds producing plots shall be inspected during growth by a certification officer as enshrined in Article 33 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedling in the ECOWAS zone. There shall be a minimum of three inspections:

a) the first one before flowering to check isolation and purity;

b) the second one, at the beginning of flowering to check purity;

c) the third one at the end of flowering to check purity

2. Such inspections shall be aimed at verifying the origin of the plant material, the field background, farming practices, compliance with isolation standards, the count of off-types, the presence of diseases and insects.

Article 37: Notification of Sowing

All establishments of seed crops shall be subjected to a notification using a form issued for that purpose. Such notification must be forwarded to the official control and certification service before the sowing of crops. Failing this, the crop shall be rejected by the official control and certification service.

Article 38: Origin of the Parent Seed

The producer who establishes a seed crop should be able to justify the origin, quantity, variety and category of the parent seed, by presenting procurement documents like certificates, invoices or delivery slips. Such documents shall be presented to the control agent during his first visit. If the producer cannot provide the documents, the crop shall be rejected.

Article 39: Preceding Crop

The plot must not have carried, during the preceding crop year, any sorghum crop unless it is the same variety and that the plot has been sowed with certified seeds of the same generation or a previous generation. In the case of developed irrigated. In such case, after the prior irrigation of the seed increase plot, it shall be necessary to destroy all volunteer plants through tillage operations three weeks before the sowing. The plot should be clear of any sorghum volunteer plant.

Article 40: Isolation

The minimum isolation distances to be observed for each category of seed shall be outlined in Table 7 relating to the criteria and standards for field control of sorghum seeds.

Article 41: Crop Condition of Seed Fields

The poor state of a field may be a cause for rejection by the official control and certification service if the following criteria are not met:

a) Varietal purity Impurities, off-types and suspect plants must be eliminated by the producer as soon as possible before the release of pollen. The tolerated maximum number of off-types per control shall be contained Table 7 relating to the criteria and standards for field control of sorghum seeds.

b) Weeds

A multiplication plot that is totally invaded by weeds and especially by plants like *Sorghum halepense* whose seeds can hardly be separated during conditioning shall be rejected by the official control and certification service.

c) Health status

All sorghum fields must be free of noxious pathogens transmissible by seed. The widespread infestation of plants by smut may be cause for rejection by the official control and certification service.

Infested ears must be plucked and destroyed away from the field. The harvested seeds must be treated with fungicide.

d) Rejection of a crop

A sorghum seed crop shall be rejected by the official control and certification service when the minimum standards contained in Table 7 below are not met.

Table 7 – Criteria and standards for field control of self-pollinated sorghum seeds

Factor	**Breeder Seed**	**Foundation Seed**	**Certified Seed**
Maximum Off-types (%)	0.1	0.1	0.5
Noxious weeds (%)	0	0	0
Head Smut (%)	0	0	0.01
Kernel Smut (%)	0	0	0.04
Maximum diseased plant per $500m^2$	3	3	3
Isolation (metres)	400	300	200

CHAPTER XIV: CONTROL OF LOTS

Article 42: Size of Lots

The composition of rice seed lots shall comply with ISTA-developed set of rules. The maximum weight of a sorghum seeds lot shall be of 10 tons.

Article 43: Sampling
For official testing, the sampling of seeds lots shall be carried out in compliance with ISTA rules and be conducted by agents of the official control and certification service or any other authorized institution.

CHAPTER XV: CERTIFICATION

Article 44: Certification of Sorghum Seeds
Sorghum seed lots submitted for certification must meet all regulatory requirements and especially the standards specified in Table 8 below:

Table 8 – Types and standards for laboratory testing of sorghum seeds
Self-pollinated sorghum

Factor	Breeder Seed	Foundation Seed	Certified Seed (R1)	Certified seed (R2)
Varietal purity (%)	99.9	99.9	99.7	99.0
Minimum specific purity (%)	98.0	98.0	98.0	98.0
Inert matter (%)	2	2	2	2
Maximum number of seeds of other Species (%)	5 seeds/kg	5 seeds/kg	0.1	0.1
Maximum number of noxious weed seeds (%)	5seeds/kg	5seeds/kg	0.1	0.1
Maximum moisture content (%)	12	12	12	12
Minimum germination (%)	80	80	80	80

APPENDIX II: PULSE SEED: GROUNDNUT AND COWPEA

TITLE I - GENERAL PROVISIONS

CHAPTER I: SCOPE

Article 1: Scope of Appendix
This technical agreement annex shall be relevant to the control and certification of pulse seeds (groundnut and cowpea) in accordance with Article 58 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedlings within the ECOWAS zone.

CHAPTER II: CATEGORIES OF SEEDS

Article 2: Categories of Seeds
The categories of seeds of pulse concerned shall be: a) pre-basic seeds, b) basic seeds, c) certified seeds.

CHAPTER III: ADMISSION FOR CONTROL

Article 3: Categories of Admission
Admission for control shall be declared either separately or concurrently for accredited producers of the following categories of seeds: a) producer of pre-basic seeds, b) producer of basic seeds, c) producer of certified seeds.

TITLE II - CONTROL AND CERTIFICATION OF GROUNDNUT SEEDS (*Arachis hypogaea* L)

CHAPTER IV: CONTROL OF CROPS

Article 4: Number of Field Inspections
1. All groundnut seeds producing plots shall be inspected during growth by a control agent as enshrined in Article 33 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedling in the ECOWAS zone.
There shall be a minimum of two inspections:
a) the first one, before flowering is designed to check isolation standards;
b) the second one, during flowering, is aimed to check the purity.
2. Such inspections shall be aimed at verifying the origin of the plant material, the field background, farming practices, compliance with isolation standards, the count of off-types, the presence of diseases and insects

Article 5: Notification of Sowing
All establishments of seed crops shall be subjected to a notification using a form issued for that purpose. Such notification must be forwarded to the official control and certification service before the sowing of crops. Failing this, the crop shall be rejected by the official control and certification service

Article 6: Origin of the Parent Seed

The producer who establishes a seed crop should be able to justify the origin, quantity, variety and category of the parent seed, by presenting procurement documents like certificates, invoices or delivery slips. Such documents shall be presented to the control agent during his first visit. If the producer cannot provide the documents, the crop shall be rejected.

Article 7: Preceding Crop

The plot must not have carried, during the preceding crop year, any groundnut crop unless it is the same variety and that the plot has been sowed with certified seeds of the same generation or a previous generation. In the case of developed irrigated. In such case, after the prior irrigation of the seed increase plot, it shall be necessary to destroy all regrowths through tillage operations three weeks before the sowing. The plot should be clear of any groundnut volunteer plant.

Article 8: Isolation

The minimum isolation distances to be applied between two plots of distinct varieties of groundnut shall be outlined in Table 1 relating to the criteria and standards for field control of groundnut seeds.

Article 9: Crops Condition of Seed Fields

The poor state of a field may be a cause for rejection by the official control and certification service if the following criteria are not met:

a) Genetic purity

The presence of off-types above a certain threshold may cause a field to be rejected by the official control and certification service. Such rogue plants may be: plants of other varieties; natural hybrids; disjunctions; and abnormal plants.

Suspect plants must be plucked and removed out of the plot. The tolerated maximum percentage of off-types for each seed category is provided in Table 1 relating to criteria and standards for field control of groundnut seeds.

b) Analytical purity

The presence of specific impurities in a groundnut seed field shall not necessarily be a cause for rejection. However, their presence should be carefully highlighted and the producer urged to eliminate them.

c) Weeds

Noxious weeds whose seeds are hardly eliminated during conditioning must be eliminated by the producer.

d) Health status

The presence of diseases reducing the value of seed use may be a cause for rejection by the official control and certification service. All plants infected by seed-transmissible diseases should be removed by the producer.

e) Rejection of a crop

A groundnut seed crop shall be rejected by the official control and certification service when the standards in Table 1 below are not met:

Table 1 – Criteria and standards for field control of groundnut seeds

Factor	Breeder seed Seed	Foundation Seed	Certified Seed
Maximum Off-types (%)	0.1	0.1	0.5
Maximum diseased Plants per 500m^2	0	0	3
Isolation (meters)	5	5	3

CHAPTER V: CONTROL OF LOTS

Article 10: Size of Lots

The composition of groundnut seed lots shall comply with ISTA-developed set of rules. The maximum weight of a groundnut seeds lot shall be of 25 tons.

Article 11: Sampling

For official testing, the sampling of seeds lots shall be carried out in compliance with ISTA rules and be conducted by agents of SDCA or any other authorized institution.

CHAPTER VI: CERTIFICATION

Article 12: Certification of Groundnut Seed

Groundnut seed lots submitted for certification must meet all regulatory requirements and especially the standards contained in Table 2 below:

Table 2 – Types and standards for laboratory testing of groundnut seeds

Factor	**Breeder Seed**	**Foundation Seed**	**Certified Seed (R1)**	**Certified seeds (R2)**
Minimum varietal purity (%)	99.9	99.9	99.7	99.0
Minimum specific purity (%)	96.0	96.0	96.0	96
Inert matter (%)	4	4	4	4
Maximum number of seeds infested by bruchids (*Caryedon serratus*) (%)	2	2	2	2
Maximum number of seeds infected by diseases (*Aspergillus, Fusarium spp*) (%)	5	5	5	5
Maximum number of noxious weed seeds	0	0	10 seeds / kg	10 seeds / kg
Minimum germination (%)	70	70	70	70
Maximum number of other crop seeds	0	0	10 seeds/kg	10 seeds/kg

Factor	Breeder Seed	Foundation Seed	Certified Seed (R1)	Certified seeds (R2)
Maximum number of other groundnut seeds	0	0	10seeds/kg	10seeds/kg
Maximum moisture content (%)	9	9	9	9

TITLE III - CONTROL AND CERTIFICATION OF COWPEA SEED (*Vigna unguiculata*)

CHAPTER VII: CONTROL OF CROPS

Article 13: Number of Field Inspections

1. All cowpea seeds plots shall be inspected as often as possible during growth by a control agent in keeping with Article 33 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedling in the ECOWAS zone. However, a minimum of three inspections shall be carried out: a) the first one before flowering to check isolation and purity; b) the second one, at the beginning of flowering to check purity; c) the third one at the end of flowering to check purity.
2. Such inspections shall be aimed at verifying the origin of the plant material, the field background, farming practices, compliance with isolation standards, the count of off-types, the presence of diseases and insects.

Article 14: Notification of Sowing

All establishments of seed crops shall be subjected to a notification using a form issued for that purpose. Such notification must be forwarded to the official control and certification service before the sowing of crops. Failing this, the crop shall be rejected by the official control and certification service.

Article 15: Origin of Parent Seed

The producer who establishes a seed crop should be able to justify the origin, quantity, variety and category of the parent seed, by presenting procurement documents like certificates, invoices or delivery slips. Such documents shall be presented to the control agent during his first visit. If the producer cannot provide the documents, the crop shall be rejected.

Article 16: Preceding Crop

A multiplication plot must not have carried over the preceding season a different variety of cowpea or a pulse that could represent a limiting factor for cowpea cropping, notably soybean, unless it is the same variety and that the plot has been sowed with certified seeds of the same generation or a previous generation. In the case of developed irrigated. In such case, after the prior irrigation of the seed increase plot, it shall be necessary to destroy all volunteer plants through tillage operations three weeks before the sowing. The plot should be clear of any sorghum regrowth.

Article 17: Isolation

The minimum isolation distances for two plots of different cowpea varieties shall be outlined in Table 3 relating to the criteria and standards for field control of cowpea seeds.

Article 18: Crops Condition of Seed Fields
The poor state of a field may be a cause for rejection by the official control and certification service if the following criteria are not met.

a) Genetic purity
The presence of off-types beyond a certain threshold may be a cause for rejection of a field by the official control and certification service. These may be: - plants of other varieties, - natural hybrids, - disjunctions, - rogue plants.
The tolerated maximum incidence of off-types for each category of seeds is provided in Table 3 relating to the criteria and standards for field control of cowpea seeds.

b) Analytical purity
The presence of specific impurities in a cowpea seed field shall not necessarily be cause for rejection. However, their presence must be carefully noted and the plot owner invited to eliminate them.

c) Weeds
Noxious weeds whose seeds are difficult to eliminate during conditioning must be removed, especially some pulse plants such as soybean.

d) Health status
The presence of diseases that reduce the use value of seeds may be a cause for rejection by the official control and certification service. Plants infested by seed- transmissible diseases shall be removed by the producer.

e) Rejection of a crop
A cowpea seed crop shall be rejected by the official control and certification service when the minimum standards in Table 3 below are not met:

Table 3 – Criteria and standards for field control of cowpea seeds

Factor	**Breeder seed Seed**	**Foundation Seed**	**Certified** Seed
Maximum off-types (%)	0.1	0.1	0.2
Maximum diseased plants (%)	0.1	0.1	0.2
Minimum isolation (meters)	25	10	10

CHAPTER VIII: CONTROL OF LOTS

Article 19: Size of Lots
The composition of cowpea seed lots shall comply with ISTA-developed set of rules. The maximum weight of a cowpea seeds lot shall be of 20 tons.

Article 20: Sampling

For official testing, the sampling of seeds lots shall be carried out in compliance with ISTA rules and be conducted by agents of the official control and certification service or any other authorized institution.

CHAPTER IX: CERTIFICATION

Article 21: Certification of Cowpea Seeds

Cowpea seed lots submitted for certification must meet all regulatory requirements and especially the standards specified in Table 4 below.

Table 4 – Types and standards for laboratory testing of cowpea seeds

Factor	**Breeder seed**	**Foundation seed**	**Certified seed (R1)**	**Certified seeds (R2)**
Minimum varietal purity (%)	99.9	99.9	99.7	99.0
Minimum specific purity (%)	98	98.0	98.0	98.0
Inert matter (%)	2	2	2	2
Maximum number of infestation of *Callosobruchus maculatus (%)*	0.5	0.5	0.5	0.5
Noxious seeds (%)	0	0	0.1	0.1
Minimum germination (%)	75	75	75	75
Maximum number of seeds of other species (%)	0	0	0.5	0.5
Maximum number of infestations of seeds infected by bacteria and viruses (%)	0	0	0	0.4
Maximum moisture content (%)	9	9	9	9

APPENDIX III: ROOT PLANTS AND TUBER SEED (CASSAVA)

TITLE I – GENERAL PROVISIONS

CHAPTER I: SCOPE

Article 1: Scope of Appendix
This technical agreement annex shall apply to the control and certification of a root crop (cassava) in accordance with Article 58 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedlings in the ECOWAS zone.

CHAPTER II: CATEGORIES OF SEEDS

Article 2: Categories of Seeds
The categories of cassava seeds shall be: a) pre-basic seeds, b) basic seeds, c) certified seeds.

CHAPTER III: ADMISSION FOR CONTROL

Article 3: Producers of Certified Cuttings of Cassava
Admissions for control shall be released separately or concurrently for accredited producers of the following categories of cassava cuttings: a) producer of pre-basic cuttings, b) producer of basic cuttings, c) producer of certified cuttings.

TITLE II - CONTROL AND CERTIFICATION OF CASSAVA SEEDS (*Manihot esculenta* Crantz)

CHAPTER VII: CONTROL OF CROPS

Article 4: Number of Field Inspections
1. A minimum of four inspections shall be carried out by a control agent as enshrined in Article 33 of Regulation C/REG.4/05/2008 to harmonize rules governing the control and certification of plant seeds and seedling in the ECOWAS zone:
a) the first inspection shall be carried out within 60 days after planting of the cuttings;
b) the second one about 120 days after; c) the third one about 180 days after; d) the fourth one just before the cutting of the stems.
2. Such inspections shall serve to check namely the origin of the plant material, the field background, cropping practices, compliance with isolation standards, the counting of off-types, the presence of diseases and insects.

Article5: Notification of Sowing
All establishments of seed crops shall be subjected to a notification using a form issued for that purpose. Such notification must be forwarded to the official control and certification service before the sowing of crops. Failing this, the crop shall be rejected by the official control and certification service.

Article 6: Preceding Crop
The plot must not have carried, for at least one year, any cassava crop unless it is the same variety and that the plot has been sowed with certified cuttings of the same generation or a previous generation. In the case of developed irrigated. In such case, after the prior irrigation of the seed increase plot, it shall be necessary to destroy all regrowths through tillage operations three weeks before the sowing. The plot should be clear of any cassava regrowth.

Article 7: Planting Site
Cassava Cuttings multiplication fields should not be established on swampy, shade or flat areas exposed to flooding during rainy seasons. Producers of cuttings shall be bound to seek rich mellow and drained soils

Article 8: Isolation
The minimum distances to be observed are provided in Table 1 below.

Table 1 – Isolation standards for cassava seed fields

Sources of contamination	**Minimum distance (meters)**	
	Basic and pre-basic plants	**Certified plants**
Cassava plots with a different variety	5 m	5 m
Field with the same variety but not compliant with varietal purity	5 m	5 m

Article 9: Crops Condition of Seed Fields
The poor state of a seed field may be a cause for rejection of the plot in case the following criteria are not met.
a) Varietal purity: All off-type plants must be pulled out by the producer and taken out of the field.
b) Weeds: All producing field of cassava Cuttings must be kept very clean. All specific impurities and weeds shall be regularly eliminated by the producer.
c) Health status: The presence of noxious diseases and insects in a field of cassava seedlings can be cause for rejection by the official control and certification service.
d) Rejection of a crop: The rejection of crop of cassava cutting by the official control and certification service shall occur when the standards in Table 2 below are not met

Table 2 – Criteria and standards for field quality control of cassava seed

Criteria	**Acceptable maximum percentage**	
	Basic and pre- basic plants	**Certified plants**
Maximum off-types (%)	0.10%	0.20%
Minimum analytical purity (%)	99%	90%
Maximum plants presenting symptoms of mosaic disease (%)	0.10%	0.50%
Maximum plants infested by pests (%)	0%	0%

CHAPTER VIII: CONTROL OF LOTS

Article 10: Storage of Cassava Cuttings:
Cassava stems or Cuttings lots shall be kept in shaded areas to prevent rapid drying and reduction of stem latex. They must be protected from diseases and herbivorous insects such as locusts and termites.

Article 11: Sampling
A sample to be submitted for laboratory testing must not be fewer than 20 untreated Cuttings. The length of Cuttings shall be approximately 20 cm each. The sample collecting shall be carried out by agents of the official control and certification or any other authorized institution using kraft paper bags.

CHAPTER IX: CERTIFICATION

Article 12: Certification of Cassava Cuttings
Cassava Cutting lots submitted for certification must meet regulatory requirements and especially the standards contained in Table 3 below.

Table 3: Types and standards for laboratory testing of cassava Cuttings

Criteria	**Certification standards**		
	Pre-basic cuttings	**Basic cuttings**	**Certified cuttings**
Age of crop for certification	8 to 16 months		
Diameter of stem (Cutting)	1.5 to 2.5 cm		
Approximate length of Cutting:	20 cm		
Approximate number of nodes per Cutting	5		
Presence of latex in the cutting of a stem or Cutting	avoid certifying old or dry stems		
Maximum tolerance thresholds for Cuttings with visible signs of infestation by:			
□ anthracnose	0.5%	0.5%	0.1%
□ stem mealybug	0%	0%	0%
□ cassava leaf mosaic	0%	0%	0%
□ cassava bacteriosis	0%	0%	0%

APPENDIX IV: APPLICATION FORM FOR FIELD INSPECTION

Seed Development and Certification Agency
Liberia, W.A.

County:
.....

Name of Grower: ..... Location of farm:
.....

Tel No ..... Email address
.....

Crop: ..... Variety: ..... Class of seed:.....
.....

Hecterage: .....Number of plots: .....

Source of seeds planted Lot no of seeds planted Planting date

Name and Signature of applicant:……..

Date:……

*One copy of form to be forwarded to the Head Office, SDCA

For office use only
Received by Signature…….. Date……..

APPENDIX V: MODEL CERTIFICATION ATTESTATION

Seed Development and Certification Agency
Liberia, W.A.

Serial NO: ……..
Date: …….

This is to certify that the seed lot to which this certificate pertains has been produced according to and found to conform to the standards prescribed for certification under section 93 (1) of the Seeds Regulation. The details of the lot are given below:
Crop:……. Cultivar:…….
Class of seed:…….. Lot No:…….
Quantity of seed in the Lot:……..kg Date of Test:……
Total No. of tags issued in the Lot:…… Other crop seed:……
Serial No. of tags issued:……... Objectionable weed seed:……%
Pure Seed:……% Total weed Seed:……..%
Germination:……%
Moisture:……..%
Seed Producers
Name:……
Town:……
County:……

Certification valid up to a period of nine months from the date of issue of the certificate provided the seed is stored under ideal conditions.

Use of seed after expiry of the validity period by anyone is entirely at his/her risk and the NSB shall not be responsible for any damage to the seed. No one should accept the seed if certification tag or seal is absent or has been tampered with. The person to whom this certificate is granted is entitled for a certification tag for each container in the lot and shall follow the provisions for labeling under the Seeds Regulations.

Officer-In- Charge
National Seed Board

APPENDIX VI: APPLICATION FOR LISTING IN CATALOGUE

NATIONAL SEED BOARD (NSB), LIBERIA

FILE N°……

1. Applicant
1.1Name: _____
1.2Postal Address :_____
Tel. fixed:_____Tel.Mobile:_____
Fax :_____Email :_____
2. Plant Breeder *
2.1Name: _____
2.2Postal Address :_____
Tel. fixed:_____Tel.Mobile:_____
Fax :_____Email :_____
3. Species_____
4. Proposed appellation (in capital letters) _____
5. Plant breeding
5.1 Genetic Origin_____
5.2 Mode of plant breeding_____
5.3 Formula ** (1) Closed Open
(Case of hybrids)

Appellation	**Already**		**Undergoing study**		**Yet to be studied**
	Listed N°	Protected N°	Listing N°	Protection N°	

6. Agro- ecological zone recommended by the plant breeder
(2)_____

** Delete as appropriate
(1) In case of a closed formula, this may not be disclosed.
(2) Test and production zone

7. Does the variety require the repeated use of other varieties? Yes – No

7.1 Name of these varieties	7.2 Plant Breeders

8. Are these varieties protected? yes or no ** if yes, attach written powers of attorney by plant breeders

9. Protection

9.1 Is the variety protected? yes-no **

9.2 Is there any application for protection of this variety? yes-no

10. Listing in another country

10.1 Has this variety been listed in a national catalogue? yes-no

Country	**Date**	**Appellation and references**
1.		
2.		
3.		

10.2 Is there any application for listing of this variety in a catalogue? yes - no **

Country	**Date**	**Appellation and references**
1.		
2.		
3.		

NB: Non-payment of application fees shall entail a deferment of the test

11. Maintenance of the variety

11.1 Name of official *_____

11.2 Locality _____

11.3 Method used_____

12. I hereby certify that all the information given above is correct and is not, to the best of my knowledge, subject to any restrictions that may influence the outcome of the examination of the application. I undertake to immediately notify the NSB of any changes relating to the applicant or the plant breeder and of any decision taken by an official service concerning the variety as soon as I am informed about it.

13. I authorize NSB to carry out any technical information exchange and any necessary consultations with the official services of foreign countries in respect of the appellation.

14. I undertake to pay the listing fees pertaining to this application.

Done at…….on this day……..

_____

The Applicant

APPENDIX VII: POWER OF ATTORNEY

I, the undersigned, (name or corporate name)……..……
Address……..……
…
Working with the following as proxy:
Name or corporate name……...
Address……
Hereby grant the power of attorney to the latter, except otherwise stated below, to fully act in view of submitting the application for listing the following variety in the national catalogue……:……..
Appellation (or tentative reference):……...
File n°: …….

Done at ……on this day ……

Certified Signature (1)

(1) The signature must be preceded by the hand-written indication: « READ AND APPROVED – POWER OF ATTORNEY GIVEN BY ».

APPENDIX VIII: EXPLANATORY NOTE

Application for listing in catalogue
Practical Information and Instructions
Species
«…to be specified…»
List A – List B

Submission of Applications
Before the (DD-MM-YY) of each year (date to be determined by the NSB)
To the following address: …give the address of the NSB secretariat (NSB address).

1. Listing fees

Modalities for payment
Upon receipt of the corresponding invoices, the Applicant shall pay either by cheque or bank transfer the due amount to:
The Accountant of …….
Address:…….
CIC Account N°…….
Bank Code…….
Teller Code……
Super key…….

2. Details of fees to be paid (amount: refer to annual scale)

1st year	Administrative fees
	Fees for identity-novelty test
	Fees for culture test (list A only)
2nd year	Fees for identity-novelty test
	Fees for culture test (list A only)

In case of deferment of an application for listing of a variety for supplementary studies, the VRRC of the National Seed Board shall decide if supplementary fees need to be paid.

3. Provision of samples
Deadline for submission
Samples must reach the following addresses before the dd mm of each year, accompanied by a phytosanitary passport of the country of origin.
Delivery shall be by postage paid and all customs formalities shall be completed by the applicant or his/her national proxy.