

## **Normative Instruction - Norms and Standards and Annexes – Potato**

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Draft Normative Instruction and Annexes that establish the Norms for the Production and Commercialization of Potato Propagation Material (*Solanum tuberosum* L.) and their standards, valid throughout the National Territory, aiming to guarantee their identity and quality.

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THE MINISTER OF STATE FOR AGRICULTURE, LIVESTOCK AND SUPPLY, in the use of the attributions granted by art. 87, sole paragraph, II, of the Constitution, in view of the provisions of Law No. 10,711 of August 5, December 2003, Decree No. 5,153, dated July 23, 2004, Decree No. 24,114, of April 12, 1934, in Normative Instruction MAPA No. 9, of June 2, 2005, in the Normative Instruction MAPA nº 24, of December 16, 2005, in the Normative Instruction MAPA nº 48, of December 2006, in Normative Instruction MAPA nº 25, of June 27, 2017, and what consists of Process nº 21000.006442 / 2018-77, resolves:

Art. 1º Establish the Standards for the Production and Commercialization of Potato Propagation Material (*Solanum tuberosum* L.) and their standards, with validity throughout the national territory, aiming to guarantee their identity and quality.

§ 1º Identity and quality standards for production and commercialization of potato propagation material are set out in Annex I of this Normative Instruction.

§ 2º The standards dealt with in § 1 of this article apply to fields and clonal gardens installed after the publication of this Normative Instruction.

Art. 2º To approve the models of the forms arranged in the following Annexes: Annex II - Appraisal Report of Equivalence of Batch Category of Propagation Material Imported, Annex III - Certificate of Potato Propagation Material, Annex IV - Term of Conformity of Potato Propagation Material, Annex V - Application for Clonal Garden Registration, Annex VI - Field Inspection Report of Potato Seed, Annex VII - Inspection Report of Tubers, Annex VIII - Analysis of Potato Propagation Material, Annex IX - Official Bulletin of Analysis of Potato Propagation Material and Annex X - Production and Commercialization Map of Potato Propagation Material.

### **CHAPTER I**

#### **OF THE PRELIMINARY PROVISIONS**

Art. 3º For the purposes of this Normative Instruction, the following definitions shall apply:

I - potato propagating material: part of the plant used for its vegetative propagation.

II – potatoes seeds: tuber produced under the standards laid down in this Normative Instruction, for the purpose of sowing.

III - genetic potato seed: asexual propagating material, obtained from of the plant breeding process, under the direct responsibility and control of its breeder or introducer, maintaining their characteristics of identity and genetic purity;

### **CHAPTER II**

#### **OF POTATO PROPAGATION MATERIAL**

##### **Section I**

##### **From the Categories of Potato Propagation Material**

Art. 4º The seed potatoes shall be produced in the following categories:

I - genetics;

II - basic (G0, G1, G2 and G3);

III - certified C1;

IV - certified C2;

V - non-certified S1; and

VI - not certified S2.

§ 1º The basic category comprises the successive generations G0, G1, G2 and G3.

§ 2º The categories referred to in items I to IV of this article shall be produced under the certification process.

§ 3º The seed potato basic category G0 will be grown in environment protected and obtained from propagating material originating from the clonal garden of plant or the clonal garden of the parent plant.

§ 4º The seed potato basic category G1 will be obtained from the potato seed basic category G0.

§ 5º The seed potato basic category G2 will be obtained from the potato seed basic category G1.

§ 6º The potato seed basic category G3 will be obtained from the potato seed basic category G2.

§ 7º The potato seed category certified C1 and C2 and not certified S1 and S2 material from the propagation of higher categories.

Art. 5º The plants supplying potato propagating material correspond to the following categories:

I - basic plant; and

II - plant matrix;

§ 1º The Basic Plants shall be registered exclusively by the breeder or by the introduction of the cultivar and will give rise to the genetic seed potato and other propagation that will be used to produce potatoes seeds in categories or to produce new basic plants or parent plants.

§ 2º The Matrix Plants will give rise to the basic seed potato G0 and to others propagating material to be used to produce potatoes seeds in categories or for the implementation of new parent plants.

## **Section II**

### **From the Import of Potato Propagation Material**

Art. 6º The potato propagation material may be of national origin or imported.

Art. 7º The imported potato seed tubers shall be free from land.

§ 1º Will be allowed a thin layer of dirt, remaining from the tuber cleaning.

§ 2º The batches that do not comply with the provisions of § 1º of this article shall be returned or destroyed at the expense of the importer and with the follow-up of the Federal Agricultural Tax Auditor, when applicable.

Art. 8º The batch of imported propagating material shall be inspected at the point of entry, where a sample can be collected for analysis of the parameters of identity and quality standards established in Annex I of this Normative Instruction, to be carried out in official or accredited laboratory belonging

to the National Network of Agriculture and Livestock Laboratories of the Unified System of Attention to Agricultural Health, accredited in the RENASEM.

Single paragraph. In case of results that do not meet the standards established in the Annexes to this Normative Instruction, MAPA shall define, listened the importer, the destination of the batch.

Art. 9º On importation, the Ministry of Agriculture, Livestock and Supply may prescribe, at the request of the interested party, the treatment, disinfection, or cleaning, with burdens for the interested party, when it is found indices above levels established in Annex I of this Normative Instruction.

§ 1º The established in the **caput** will be allowed only in relation to the pests *Streptomyces scabiei* (ex Thaxter 1892) Lambert & Loria, *Rhizoctonia solani* J.G. Kuhn = *Thanatephorus cucumeris* (A.B. Frank) Donk, *Helminthosporium solani* Durieu & Mont., *Alternaria solani* Sorauer, *Fusarium* spp. (except *F. solani* F. sp. Eumartii C. W. Carp = *Haematonectria haematococca* (Berk. & Broome) Samuels & Rossman) and damage by insects, and will be accompanied by Federal Agricultural Tax Auditor or authority for designated by prior scheduling.

§ 2º After the procedure provided for in the **caput**, the batch shall be sampled again in the establishment of the importer and analyzed to verify compliance with the established standards and definition of discarded material destination.

Art. 10. When imported, the batch of potato propagating material shall be accompanied by the corresponding Certificate or equivalent document proving that the batch was produced under an official certification process, in addition to the Phytosanitary Certificate.

Single paragraph. The Certificate or equivalent document shall contain the identity and quality information necessary for the assessment of the equivalence category and compliance with the standards, established in this Normative Instruction.

Art. 11. The packaging of imported potato propagating material in the point of entry, should be identified with at least the following information:

I - species;

II - cultivar;

III - class or category, according to the country of origin;

IV - batch;

V - classification (upper and lower limits of the smallest diameter, in mm);

VI - crop; and

VII - weight per package.

Art. 12. The batch of imported potato propagating material which does not have equivalence of categories previously established by MAPA with the exporting country, except for imports for trials of Value of Cultivation and Use - VCU, will be evaluated previously for category equivalence, in the decentralized MAPA unit in the Unit of the Federation of the entry point, on the occasion of the presentation of the Application of Consent to Import for customs clearance, as set out in Annex II to this Normative Instruction.

§ 1º The equivalence evaluation shall be carried out based on the data and information contained in the Certificate, or equivalent document issued by an entity recognized by the country of origin, containing the identity and quality of potato propagation material, in according to the established in Annex I of this Normative Instruction.

§ 2º For the equivalence of the category of batches of imported potato propagating material, regardless of the denominations used in the country of origin, shall be adopted the following correspondence:

I - the *in vitro* material must meet the identity and quality standard established for the basic category G0;

II - the potato propagating material *in vivo* shall be framed in accordance with standard of identity and quality established in Annex I of this Normative Instruction.

Art. 13. In the technical-fiscal evaluation of category equivalence of the imported potato propagation material, the material will fall into the corresponding category to the lowest pattern index found in at least one of the evaluated parameters.

Art. 14. For the purpose of this Normative Instruction, will prevail the results of the Official Bulletin of Analysis of Potato Propagation Material, referring to the sample of imported potato propagating material, where there is a divergence between these results and the equivalence previously established with the exporting country or with the data and information contained in the documents evaluated for the issuance of the Equivalence Report.

### CHAPTER III

#### OF PRODUCTION OF POTATO PROPAGATION MATERIAL

##### Section I

##### From the Environments for Production of Potato Propagation Material

Art. 15. The production of potato propagating material shall be conducted in an open field or in a protected environment.

Single paragraph. The production of potato propagation material in a protected environment shall be carried out in:

I - *in vitro* propagation unit registered in MAPA according to Normative Instruction No. 22, of August 27, 2012;

II - greenhouse covered with anti-aphid screen with mesh of maximum dimensions of 50 mesh and on sterile substrate.

Art. 16. The basic plants and parent plants will be conducted in a protected environment.

Art. 17. The Clonal Garden of Basic Plants will be formed from the basic material of the breeder or the introducer or propagating material of the clonal garden itself.

Art. 18. The Clonal Garden of Matrix Plants will be formed from:

I - propagation material from Clonal Garden of Basic Plants;

II - of imported *in vitro* material, meeting the basic G0 standard;

III - of propagating material originating from Clonal Garden of Matrix Plants.

Art. 19. Clonal gardens should be free from potato virus X (PVX), Potato virus Y (PVY), Potato virus S (PVS), Potato Leafroll virus (PLRV), by means of analyzes carried out in an official or accredited laboratory belonging to the National Network of Agricultural Laboratories of the Unified System of Attention to Agricultural and Livestock Health, accredited at RENASEM.

Art. 20. The seed potato of the basic categories G1, G2, G3, certified C1 and C2, and not certified S1 and S2, may be produced in a production field installed in a protected environment or in an open field, duly registered in an electronic system available by MAPA.

§ 1º In the production of seed potatoes in open field, for the purpose of inspection and sampling, the field should be subdivided into areas with a maximum area of up to 5 hectares, preserving the isolation provided for the same cultivar, respecting the orientation of the planting lines and the delimitation by carriers.

§ 2º The fields of production of seed potatoes in a protected environment may be installed with one or more cultivars in the same environment, keeping the isolation between them and meeting the requirements for registration established by MAPA.

## **Section II**

### **From the Clonal Garden Inscription and the Seed Potato Production Field**

Art. 21. The clonal garden must be registered in the inspection body of the Federation Unit where it is installed.

§ 1º The clonal garden registration, by production estimate, shall be requested up to 30 (thirty) days after its installation and shall be renewed every three years.

§ 2º In case where registration is carried out in a Federation Unit other than the one where the producer is registered in RENASEM, the supervisory body depositary of the registration shall make available to the inspection body of the Federation Unit where the producer is registered in RENASEM, within the term maximum of 10 (ten) days, counted from the homologation of the registration, a copy of the homologated documents.

Art. 22. The registration of the seed potato production field must be requested up to twenty (20) days after its installation.

Art. 23. For the inscription of the clonal garden, the following will be required:

I - registration of application according to the model in Annex VI of this Normative Instruction, accompanied by the documents required in that form, as applicable;

II - proof of payment of the corresponding fee;

III - authorization of the holder of the cultivar intellectual property rights, in case of protected cultivar in Brazil, when registered by a third party other than the holder of those rights;

IV - proof of identity or origin of propagating material, as follows:

a) For clonal garden of basic plants: declaration by the breeder or introducer that the cultivar satisfies the characteristics of genetic identity and purity declared when the cultivar is registered in the National Register of Cultivars;

b) For clonal garden of parent plants:

1) Tax Invoice, when the propagating material is acquired from third parties; and

2) Certificate of propagating material from the clonal garden of basic plants or parent plants, in accordance with Annex III of this Normative Instruction, when formed by propagating material from a clonal garden of one of these categories; or

3) Certificate of Potato Propagation Material, in accordance with Annex III of this Normative Instruction, when formed from a tuber; or

4) documents that allowed the internalization of the material, when imported.

V - contract with the certifier, when applicable;

VI - detailed road map of the property where the clonal garden is located;

VII - address, with access road, of the place where the documents required by this Normative Instruction will be available to the supervisory body, when these are kept outside the headquarters property of the production process;

VIII - withdrawal of the Depository's Term issued by the Plant Health Service of the unit of the destination federation of the material, when the material is imported and there is sample collection for phytosanitary purposes;

VII - Appraisal Report of Category Equivalence, in accordance with Annex II of this Normative Instruction, according the case, when the producer of potato seed is the importer and there is no pre-established equivalence.

Single paragraph. The inscription of potato production fields in protected environment shall be accompanied by sketches with the provisions of the plots. issued by the Plant Health Service of the Federation Unit of the material destination, when the material was imported and there is sample collection for phytosanitary purposes;

IX - Evaluation of Equivalence Report, according to Annex II of this Normative Instruction, according the case, when the producer of potato propagating material is the importer and there is no pre-established equivalence.

Art. 24. For the inscription of potato seed production field, installed from potato propagation material produced in Brazil, the following documents will be required:

I - detailed access road map, where the production fields are located;

II - proof of payment of the corresponding fee;

III - proof of the origin of the propagating material, in sufficient quantity for the planting of the area to be registered by means of the following documents:

a) invoice tax in the name of the producer or the cooperant, when purchased from third parties; and

b) Certificate (Annex III of this Normative Instruction), for propagating material originating from basic plants or seedlings and seed potatoes in the genetic, basic or certified categories, or Term of Conformity (Annex IV of this Normative Instruction), for seed potatoes in the category S1.

IV - authorization of the holder of the intellectual property rights of the cultivar, in case of protected cultivar in Brazil;

V - address, with access road, of the place where the documents required in this Normative Instruction will be available to the supervisory body, when they are kept outside the headquarters property of the production process;

VI - withdrawal of the Depository's Term issued by the Plant Health Service of the unit of the destination federation of the material, when the material is imported and there is sample collection for phytosanitary purposes;

VII - Evaluation of Category Equivalence Report, in accordance with Annex II of this Normative Instruction, according the case, when the producer of potato seed is the importer and there is no pre-established equivalence.

Single paragraph. The inscription of potato production fields in protected environment shall be accompanied by sketches with the provisions of the plots.

### **Section III**

## From the Reserve of Propagation Material for Own Use

Art. 25. The user of seed potatoes may, at each harvest, reserve part of his potato production for planting exclusively in the next harvest, on his property or on another possession.

Single paragraph. The reserved material will be considered potato seed for its own use and must comply with the provisions of item 7 of the Annex of Normative Instruction No. 09, of June 2, 2005.

### Section IV

#### Of the Surveys

Art. 26. The field inspection of potato seed production installed in open field will be carried out on farmland with a maximum area of up to 5 hectares.

§ 1º The Technician Responsible shall carry out the first survey 30 (thirty) days after the emergency and the second survey after 60 (sixty) days of the emergency, recording the occurrences in a proper form, according to the model in Annex VI of this Normative Instruction.

§ 2º During the survey, the inspector shall condemn the field if the attack of late blight (*Phytophthora infestans*) or brown spot and black pit (*Alternaria* spp.) does not allow the observation of varietal mixture, mosaics, viral folding and other viruses.

Art. 27. The Technician Responsible shall carry out the inspection of tubers in a sample collected after the formation of the batch, to evaluate the physical, physiological and sanitary quality, in order to verify compliance with the established standards.

Single paragraph. The results of the evaluation referred to in the **caput** will be expressed in the proper form, according to the model in Annex VII of this Normative Instruction.

### Section V

#### Of Sampling

Art. 28. Sampling of potato propagating material shall be carried out in production, certification and inspection and shall meet, as appropriate, the provisions set forth in item 18 of the Annex to the Normative Instruction MAPA No. 09, of 2005, and item 16 of the Annex to the Normative Instruction MAPA nº 24, of 2005, according the case.

§ 1º The sample will be collected:

I - in *in vitro* Propagation Unit, for laboratory analysis when the clonal garden is installed or for inspection purposes;

II - in the Seed Processing Unit or in the Storage Unit, for inspection of tubers by the Technician Responsible and for laboratory analysis for inspection purposes;

III - in transportation, in trade, at points of entry of imported material and in use, for laboratory analysis for inspection purposes.

§ 2º The sample shall consist of leaves, tubers or seedlings.

§ 3º The sample size of potato propagating material shall be:

I - for material produced in Brazil, in the open field:

a) for field survey, 6 (six) subsamples of 100 (one hundred) plants per plot;

b) for inspection of tubers, 400 (four hundred) tubers per batch; and

c) for laboratory tax analysis, 600 (six hundred) tubers, being: 400 (four hundred) for virus analysis, 100 (one hundred) for nematodes and 100 (one hundred) for other qualitative pests and physiological defects;

II - for material produced in Brazil, in a protected environment:

a) for field survey, 6 (six) subsamples of 100 (one hundred) plants per field;

b) for inspection of tubers, 400 (four hundred) tubers per batch; and

c) for analysis of laboratory viruses, 100 (one hundred) leaves, when installing or renovating the clonal garden;

III - for internalization of imported material:

a) for analysis of identity and quality in the laboratory, 600 (six hundred) tubers, being 400 (four hundred) for virus analysis, 100 (one hundred) for nematodes and 100 (one hundred) for other qualitative pests and physiological defects, per batch of origin or part thereof;

b) 100 (one hundred) seedlings per batch.

Art. 29. The sample will be packed in new packaging, sealed and identified, according to the purpose, using the types of packaging established in art. 45 of this Normative Instruction or, when applicable, in mesh bags.

Art. 30. The sample collected in imported material, for identity and quality analysis, may be used to comply with phytosanitary legislation.

Art. 31. It is dispensed with sampling for quality and identity analysis when the internalization of *in vitro* material and VCU material.

## **Section VI**

### **From Laboratory Analysis**

Art. 32. The procedures for analyzing identity and quality shall comply, as appropriate, with the established in item 19 of the Annex to Normative Instruction MAPA no. 09, of 2005, or in item 17 of the Annex to Normative Instruction MAPA no. 24, of 2005.

§ 1º The analysis shall be carried out in an official or accredited laboratory belonging to the National Network of Agricultural Laboratories of the Unified System of Attention to Agricultural Health, enrolled and accredited in RENASEM, and performed under methods officially approved by MAPA.

§ 2º The laboratory analysis shall be carried out to verify compliance with the identity and quality standards established in Annex I of this Normative Instruction.

## **Section VII**

### **From the Classification of Tubers**

Art. 33. The harvested tubers will be classified according to their smallest diameter in millimeters.

§ 1º The classification of the tuber will meet the upper and lower limit informed, and the batch must contain at least 95% of tubers within these limits, as an indication and guarantee of plantability.

§ 2º The upper limit of the classification of the tubers shall be at most double the lower limit.

Art. 34. The responsibility for the classification of the tubers shall be the producer, the certifying entity or the importer, according the case.



Art. 35. The classification is part of the tuber identification and will be reported in the seed document (Certificate or Term of Conformity, according the case) and on the label, packaging or seal of the batch identification.

## **Section VIII**

### **From Batches Formation**

Art. 36. The composition of the batch of seed potatoes will be carried out after being classified in the Seed Processing Unit - UBS.

Article 37. The batch of seed potatoes shall be formed with a maximum weight of 150.000 kg (one hundred and fifty thousand kilograms) and identified as established in sub-items 14.10 and 14.11 of the Annex to the Normative Instruction MAPA nº 09, of 2005.

Single paragraph. The batch of seed potatoes from the protected field shall be made up to a maximum weight of 30.000 kg (thirty thousand kilograms).

Art. 38. Batches of *in vivo* propagating material, except tubers, shall be composed of a maximum of 200 (two hundred) thousand units.

Art. 39. Batches of *in vitro* propagating material shall consist of a maximum of 1 million units.

Article 40. The batches of seed potatoes imported by the seed producer, aiming at multiplication, shall keep the original identification during storage.

## **Section IX**

### **Certification**

Art. 41. In the certification process, the surveys referred to in arts. 26 and 27 of this Normative Instruction will be carried out by the Technician Responsible (RT) of the producer, when certifying the production itself, by the RT of the certifier or by Federal Agricultural Tax Auditor - AFFA, when the certification is performed by MAPA.

Art. 42. The Certificate or the Term of Conformity shall be issued in its own forms, according to the models contained in Annexes III and IV of this Normative Instruction, respectively, based on the results expressed in the Inspection Report of Tubers established in Annex VII of this Normative Instruction and in the Analysis Report of Potato Propagation Material set out in Annex VIII of this Normative Instruction, provided that the standards established in this Normative Instruction are complied with.

## **Section X**

### **From Packaging**

Art. 43. The packaging of potato propagating material shall comply with the following provisions:

I - shall meet, for seed potatoes, the one established in item 15 of the Annex to the Normative Instruction MAPA no. 09, of 2005;

II - for tubers *in vitro*, should preserve their integrity and identity, allowing the withdrawal of the sample by MAPA; and

III - for propagating material other than the *in vivo* tuber, shall be allowed a glass test tube with a lid, plastic containers with a lid, a tray, a cardboard box or styrofoam, on its own substrate or bare root.

## **Section XI**

### **Identification in the Package**

Art. 44. The identification in the packages of seed potatoes shall comply with that established in item 21 of the Annex to the Normative Instruction MAPA no. 09, of 2005, whichever is applicable, plus the month of harvest and classification as provided in art. 35 of this Normative Instruction, being allowed, when producing in protected environment, to inform alternatively to the weight, the number of units contained in the packaging.

Art. 45. *In vitro* tuber identification shall comply with the provisions of item 21 of the Annex to the Normative Instruction MAPA no. 9, of 2005, whichever is applicable.

Single paragraph. In case of *in vitro* tubers of a single cultivar intended for a single planting, their identification may appear only in the invoice.

Art. 46. The identification of propagating material, other than the *in vivo* tuber, shall comply with that established in item 19 of the Annex to the Normative Instruction MAPA no. 24, of 2005, whichever is applicable.

Single paragraph. In case of propagating material of a single cultivar, intended for a single planting, its identification may appear only in the invoice.

## **Section XII**

### **From Storage**

Art. 47. The storage of potato propagation material shall comply with the provisions of item 16 of the Annex to the Normative Instruction MAPA No. 9, of 2005, item 14 of the Annex to the Normative Instruction MAPA No. 24, of 2005, and the Normative Instruction MAPA no. 48, of 2006, whichever is applicable.

Art. 48. The storage of seed potatoes shall be carried out in own or third-party facilities, by means of a contract with a store registered in RENASEM.

§ 1º The entry into the warehouse premises of potatoes intended for human consumption or industrial use during the storage period of potato seed is expressly prohibited.

§ 2º In case of third-party storage, the seed potato shall be accompanied by the invoice tax and the certificate or the Term of Conformity of the potato seed.

Art. 49. The storage of potatoes reserved as seed for own use and of seed potatoes purchased by the user may be carried out in third-party facilities, by means of a contract with a seed potato store registered in RENASEM, subject to the authorization of the MAPA.

Single paragraph. The potato seed reserved for its own use when stored in a third-party warehouse shall be accompanied by a copy of the storage contract between the seed potato user and the storer and the copy of the MAPA authorization for storage in a third-party.

## **CHAPTER IV**

### **OF FINAL PROVISIONS**

Art. 50. Seed potato batches may be demoted, at the request of the interested party and after MAPA authorization, in order to comply with the provisions of letter "B" of item 4 of Annex I of this Normative Instruction.

Single paragraph. When it is a question of cultivating protected, the authorization of the MAPA is conditioned to the previous authorization of the holder of the rights of the protected cultivar.

Art. 51. The production of potato propagation material shall be informed in the Map of Production and Commercialization of Potato Propagation Material, in accordance with Annex XI of this

Normative Instruction, to be sent to the inspection body of the Federation Unit where the producer is enrolled in RENASEM, in the following periods:

I - until July 10, for the production and sale occurred in the first semester;

II - until January 10, for the production and sale occurred in the second half of the previous year.

Art. 52. This Normative Instruction shall enter into force on the date of its publication.

Art. 53. The Normative Instruction MAPA nº 32, of November 20, 2012, is revoked.

BLAIRO MAGGI

**ANNEX I**

**IDENTITY AND QUALITY STANDARDS FOR THE PRODUCTION AND COMMERCIALIZATION OF POTATO PROPAGATION MATERIAL**

1. Specie:	<b>POTATO</b>						
Scientific name:	<i>Solanum tuberosum</i> L.						
2. Maximum weight of the batch							
2.1. Tubers	150.000 kg						
2.2. <i>In vivo</i> propagation material (except tuber)	200.000 units						
2.3. <i>In vitro</i> propagation material	1.000.000 units						
3. Sample size							
3.1. Material produced in Brazil							
3.1.1. In open field							
3.1.1.1. Field survey	6 (six) subsamples of 100 plants per plot						
3.1.1.2. Tuber survey	400 tubers per batch						
3.1.2. In protected environmental							
3.1.2.1. Field survey	6 (six) subsamples of 100 plants per plot						
3.1.2.2. Tuber survey	400 tubers per batch						
3.1.2.3. Virus analyze in laboratory <sup>1</sup>	100 leaves						
3.2. Imported material							
3.2.1. Laboratory analysis, identity and quality	600 tubers per batch						
	100 seedlings per batch						
4. STANDARD							
4.1. Field:							
Category	Basic				C1	C2	S1 S2
Generation	G0	G1	G2	G3			
A. Isolation							
Area with culture of species of the same botanical family: Potatoes for consumption, eggplant, tobacco, peppers, tomatoes and other Solanaceae (minimum in meters)	--	50			50	50	50
Areas cultivated with potato seed from other cultivars or from different categories	0,2	1 Line			1 Line	1 Line	1 Line
Minimum number of surveys	2	2			2	2	2
C. Time of surveys (Phases)							
1 <sup>st</sup> Survey	--	Up to 30 days after the emergency					
2 <sup>nd</sup> Survey	--	Up to 60 days after the emergency					
D. Maximum area of the glebe to survey (ha)	--	5					
E. Field surveys (maximum %)							
Varietal mixture	0	1			1	1	1
Mosaic (light, severe)	0	1	2	3	4	6	15
Leaf roll (Virus)	0	1	2	3	4	5	10
Other viruses	0	1	2	3	3	6	15
Viruses limit	0	1	2	4	6	8	15
Bacterial wilt ( <i>Ralstonia solanacearum</i> (Smith 1896) Yabuuchi et al.)	0	0			0	0	0
Soft rot, Blackleg ( <i>Pectobacterium</i> spp.= <i>Dickeya</i> spp.)	0	5			5	8	10
Rhizoctonia disease ( <i>Rhizoctonia solani</i> J.G. Kuhn = <i>Thanatephorus cucumeris</i> (A.B. Frank) Donk)	0	5			10	10	10
4.2. Tubers							
A. Pests (% of the number of the attacked tubers)							
Rhizoctonia disease ( <i>Rhizoctonia solani</i> J.G. Kuhn = <i>Thanatephorus cucumeris</i> (A.B. Frank) Donk) <sup>3</sup>	0	5			10	10	10
Common scab ( <i>Streptomyces</i> spp.) <sup>3</sup>	0	5			10	10	10
Brown eye ( <i>Cylindrocladium</i> spp.) <sup>3</sup>	0	2			2	3	6

Silver scurf ( <i>Helminthosporium solani</i> Durieu & Mont.) <sup>4</sup>	0	5	10	10	10
Bacterial wilt ( <i>Ralstonia solanacearum</i> (Smith 1896) Yabuuchi et al.)	0	0	0	0	0
Soft rot ( <i>Pectobacterium</i> spp. <sup>5</sup> ; <i>Dickeya</i> spp. <sup>5</sup> , <i>Pythium</i> spp. <sup>5</sup> )	0	1	1	2	2
Black eye ( <i>Fusarium solani</i> f.sp. <i>eumartii</i> C.W. Carp. = <i>Haematonectria haematococca</i> (Berk. & Broome) Samuels & Rossman)	0	0	0	0	0
Late blight ( <i>Phytophthora infestans</i> (Mont.) De Bary)	0	1	3	5	5
Fusarium dry rot ( <i>Fusarium</i> spp.) <sup>5</sup>	0	2	2	3	3
Black pit ( <i>Alternaria solani</i> , <i>A. grandis</i> e <i>A. alternata</i> )	0	3	5	7	7
Root knot nematode ( <i>Meloidogyne</i> spp.) <sup>5</sup>	0	2	2	3	6
Lesion nematode ( <i>Pratylenchus</i> spp.) <sup>5</sup>	0	2	2	3	6
Aphids	0	0	0	0	0
<b>B. - DAMAGE CAUSED BY INSECTS (% of the number of tubers attacked)</b>					
Moth ( <i>Phthorimaea operculella</i> Zeller)	0	2	3	5	5
Damage from other insects	0	7	7	7	20
<b>C. - PHYSIOLOGICAL DEFECTS (% of the number of tubers with physiological defects)</b>					
Black Heart; chocolate stain	5	10	12	15	15
Vitrified tuber; defoliant damage; burn	1	3	4	5	5
<b>D. - MECHANICAL DAMAGE (% of the number of tubers with mechanical damages)</b>					
Beating, cutting, skinning	3	8	12	15	15
<b>4.3. Laboratory analysis</b>					
Virus	%	%			
PVX	0	2			
PVY	0	3			
PLRV	0	2			
PVS <sup>1</sup>	0	0			
Virus limit	0	4			
<b>Nematodes and other pests within the limits provided in Table 4.2</b>					

1. For installation and renovation of the Clonal Garden.

2. Topographic insulation: Field intended for the production of basic potato seed category should be installed at the upper level of the ground.

3. It will be considered infected when the symptom exceeds 1/3 of the surface of the tuber.

4. It will be considered infected when the tuber presents more than 1/3 of its surface with silver and wilted lesion.

5. Except for quarantine pests absent.

**ANNEX II**

**ASSESSMENT EVALUATION OF EQUIVALENCE OF BATCH CATEGORY OF IMPORTED POTATO PROPAGATION MATERIAL N° \_\_\_\_\_ / \_\_\_\_\_ (NUMBER / YEAR)**

**IMPORTER IDENTIFICATION**

NAME:		
CNPJ / CPF:	Registration in RENASEM N°:	
ADDRESS:	CITY/UF	CEP:

**IDENTIFICATION OF THE EXPORTER**

Name:	<b>Grower number</b>
Address	
City:	Country:

**PRODUCT IDENTIFICATION**

Cultivar:	Category:	Harvest:
Certificate N° (or equivalent document)		Phytosanitary Certificate N° _____

Type of material	Batch N°	Representative of the Batch	
		N° of Packages	Weight per package (kg)

PARAMETERS	Technical-fiscal evaluation				
	(%)	G0-G3	C1	C2	S1-S2
Rhizoctonia disease ( <i>Rhizoctonia solani</i> J.G. Kuhn = <i>Thanatephorus cucumeris</i> (A.B. Frank) Donk)					
Common scab ( <i>Streptomyces</i> spp.) <sup>(1)</sup>					
Silver scurf ( <i>Helminthosporium solani</i> Durieu & Mont.)					
Pulverulent scab ( <i>Spongospora subterranea</i> )					
Brown eye ( <i>Cylindrocladium</i> spp.)					
Bacterial wilt ( <i>Ralstonia solanacearum</i> (Smith 1896) Yabuuchi et al.)					
Soft rot ( <i>Pectobacterium</i> spp.; <i>Dickeya</i> spp., <i>Pythium</i> spp.)					
Black eye ( <i>Fusarium solani</i> f.sp. <i>eumartii</i> C.W. Carp. = <i>Haematonectria haematococca</i> (Berk. & Broome) Samuels & Rossman)					
Late blight ( <i>Phytophthora infestans</i> (Mont.) De Bary)					
Fusarium dry rot ( <i>Fusarium</i> spp.) <sup>(1)</sup>					
Black pit ( <i>Altenaria solani</i> , <i>A. grandis</i> e <i>A. alternata</i> )					
Root knot nematode ( <i>Meloidogyne</i> spp.) <sup>(1)</sup>					
Lesion nematode ( <i>Pratylenchus</i> spp.) <sup>(1)</sup>					
Aphids (N°)					
Moth ( <i>Phthorimaea operculella</i> Zeller) (%)					
Damage from other insects					
Physiological defects	Secondary, uneven growth; black Heart; chocolate stain (%)				
	Vitrified tuber; defoliant damage; burn; skinning sprout (%)				
Mechanical damage	Beating, cutting, skinning (%)				
PVX					
PVY					
PLRV					
PVS					
Total of viruses					

<sup>(1)</sup> Except for absent quarantine pests.

FOR USE OF THE SUPERVISORY BODY

TECHNICAL ADVICE

According to the Production Rules and the Identity and Quality Standards for Production and Commercialization of Potato Propagation Material established by the Ministry of Agriculture, Livestock and Supply, the batch falls in Category: \_\_\_\_\_.

Location / Date:

\_\_\_\_\_  
Identification and signature of the Prosecutor

**ANNEX III**

**CERTIFICATE OF POTATO PROPAGATION MATERIAL No [NUMBER] / [YEAR]**

**IDENTIFICATION OF THE PRODUCER**

NAME:	
CNPJ / CPF:	Registration in RENASEM N°:
ADDRESS:	
City/UF	CEP:
Email:	Telephone:

**IDENTIFICATION OF THE CERTIFIER**

NAME:		
CNPJ / CPF:	Accreditation in RENASEM N°:	
Address:	City/UF	CEP:

**IDENTIFICATION OF THE CERTIFYING TECHNICIAN RESPONSIBLE (RT)**

NAME:		CREA N°:
CPF:	Accreditation in RENASEM N°:	
Address:	City/UF	CEP:

**WE CERTIFY** that the batch(es) listed below has (have) been produced in accordance with current national standards and is (are) suitable for commercialization:

<b>SEED BATCHES INFORMATION</b>				
Batch	Cultivar	Quantity (Kg)	Category	Date of Harvest:

[Location] / [Date]

[Location] / [Date]

[signature of certifier RT]

[signature of certifier]

\_\_\_\_\_  
[name of certifier RT]

\_\_\_\_\_  
[name of certifier]



**ANNEX IV**

**TERM OF CONFORMITY OF POTATO PROPAGATION MATERIAL No. [NUMBER] / [YEAR]**

**IDENTIFICATION OF THE PRODUCER**

NAME:	
CNPJ / CPF:	Registration in RENASEM N°:
ADDRESS:	
City/UF	CEP:
Email:	Telephone:

**IDENTIFICATION OF THE PRODUCER TECHNICIAN RESPONSIBLE (RT)**

NAME:	CREA N°:
CPF:	Accreditation in RENASEM N°:
Address:	City/UF CEP:

**WE CERTIFY** that the batch(es) listed below has (have) been produced in accordance with current national standards and is (are) suitable for commercialization:

<b>SEED BATCHES INFORMATION</b>				
Batch	Cultivar	Quantity (Kg)	Category	Date of Harvest:

[Location] / [Date]

[Location] / [Date]

[signature of producer RT]

[signature of producer]

\_\_\_\_\_  
[name of producer RT]

\_\_\_\_\_  
[name of producer]



## ANNEX VI

### FIELD INSPECTION REPORT OF POTATO SEED VARIETY Nº [NUMBER] / [YEAR]

PHASE OF CULTURE: \_\_\_\_\_

#### IDENTIFICATION OF THE PRODUCER

Name:	
CNPJ / CPF:	Registration in RENASEM Nº:
Email:	Telephone:

#### IDENTIFICATION OF THE PRODUCTION

Producer or cooperative:				
Property name:			City/UF:	
Address of the survey local:				
Field Number:		Geodetic coordinates: [XX° YY' ZZ"]		
		Latitude:	Longitude:	
Field Area (ha):		Cultivar:	Category:	
Glebe Area	Glebe Area (ha)	Glebe Estimated Production (ton)	Planting Date	Probable Date of Harvest

FACTORS		Occurrence (Number of Plants)							% of occurrence
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	Total	
1	Regrowth								
2	Other cultivars								
3	Mosaic								
4	Sheet winding (virus)								
5	Other viruses								
6	Total of Viruses								
7	Bacterial wilt ( <i>Ralstonia solanacearum</i> (Smith 1896) Yabuuchi et al.)								
8	Soft rot ( <i>Pectobacterium</i> spp.; <i>Dickeya</i> spp., <i>Pythium</i> spp.)								
9	Rhizoctonia disease ( <i>Rhizoctonia solani</i> J.G. Kuhn = <i>Thanatephorus cucumeris</i> (A.B. Frank) Donk)								
10	Late blight ( <i>Phytophthora infestans</i> (Mont.) De Bary) <sup>1</sup>								
11	Black pit ( <i>Altenaria</i> spp.) <sup>1</sup>								

<sup>1</sup> As they do not have a field standard, they serve only as an indication of possible problems in the tubers.

Approved \_\_\_\_\_ (ha)     Condemned \_\_\_\_\_ (ha)     Survey one more time \_\_\_\_\_ (ha)

TECHNICAL ADVICE:
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[Location] / [Date]

[Location] / [Date]

[signature of producer RT]

[signature of producer or cooperative]

\_\_\_\_\_  
[name of producer RT]  
RENASEM Nº [number of RENASEM]

\_\_\_\_\_  
[name of producer or cooperative]

**ANNEX VII**

**INSPECTION REPORT OF TUBERS Nº [NUMBER] / [YEAR]**

**IDENTIFICATION OF THE PRODUCER**

Name:	
CNPJ / CPF:	Registration in RENASEM Nº:
Email:	Telephone:

**IDENTIFICATION OF THE PRODUCTION**

Producer or cooperative:					
Property name:			City/UF:		
Address of the survey local:					
Field number	Cultivar	Category	Harvest	Production (ton)	Date of Harvest
Batch number		Type	Number of packages		Weight (kg)

Assessment - Sampling in accordance with standards

FACTORS	Occurrence	
	Number	(%)
Rhizoctonia disease ( <i>Rhizoctonia solani</i> J.G. Kuhn = <i>Thanatephorus cucumeris</i> (A.B. Frank) Donk) <sup>1</sup>		
Common scab ( <i>Streptomyces</i> spp.) <sup>1</sup>		
Silver scurf ( <i>Helminthosporium solani</i> Durieu & Mont.) <sup>2</sup>		
Pulverulent scab ( <i>Spongospora subterranea</i> ) <sup>1</sup>		
Brown eye ( <i>Cylindrocladium</i> spp.) <sup>1</sup>		
Bacterial wilt ( <i>Ralstonia solanacearum</i> (Smith 1896) Yabuuchi et al.)		
Soft rot ( <i>Pectobacterium</i> spp.; <i>Dickeya</i> spp., <i>Pythium</i> spp.)		
Black eye ( <i>Fusarium solani</i> f.sp. <i>eumartii</i> C.W. Carp. = <i>Haematonectria haematococca</i> (Berk. & Broome) Samuels & Rossman)		
Late blight ( <i>Phytophthora infestans</i> (Mont.) De Bary)		
Fusarium dry rot ( <i>Fusarium</i> spp.)		
Black pit ( <i>Altenaria</i> spp.)		
Root knot nematode ( <i>Meloidogyne</i> spp.)		
Lesion nematode ( <i>Pratylenchus</i> spp.)		
Aphids (Nº)		
Damage from insects	Moth ( <i>Phthorimaea operculella</i> Zeller 1873)	
	Other insects	
Physiological defects	Secondary, uneven growth; black Heart; chocolate stain	
	Vitrified tuber; defoliant damage; burn; skinning sprout	
Mechanical damage	Beating, cutting and skinning	

<sup>1</sup> Consider infected when the symptom exceeds 1/3 of the tuber surface.

<sup>2</sup> Consider infected when the tuber presents more than 1/3 of its surface with silver and wilt lesion.

TECHNICAL ADVICE:
-------------------

[Location] / [Date]

Aware, [Date]

[signature of producer RT]

[signature of producer or cooperative]

\_\_\_\_\_  
[name of producer RT]

\_\_\_\_\_  
[name of producer or cooperative]

RENASEM Nº [number of RENASEM]

**ANNEX VIII**

**OFFICIAL BULLETIN OF ANALYSIS OF POTATO PROPAGATION MATERIAL N° [NUMBER] / [YEAR]**

**IDENTIFICATION OF THE LABORATORY**

NAME:	
CNPJ / CPF:	Registration/Accreditation in RENASEM N°:
ADDRESS:	
City/UF	CEP:
Email:	Telephone:

**IDENTIFICATION OF THE SENDER**

NAME:	
CNPJ / CPF:	Registration/Accreditation in RENASEM N°:

**IDENTIFICATION OF THE SAMPLER**

NAME:	
CPF:	Accreditation in RENASEM N°:

**IDENTIFICATION OF THE SAMPLE**

Specie:	Cultivar:	Category:	
<b>SAMPLE</b>			
Number	Collection Date	Size (n° tubers / n° leaves)	Date of receipt
<b>BATCH REPRESENTATIVITY</b>			
Batch number	Type of package	Number of packages	Weight per package (kg)

PARAMETERS	Occurrence (%)
PVX	
PVY	
PLRV	
PVS	
Total of Viruses	

Brief description of the methodology used:
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COMMENTS:
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[Local] / [Date]	<p>[signature of laboratory RT]</p> <p>_____</p> <p>[name of laboratory RT]          RENASEM N° [number of RENASEM]          CREA N° [number of CREA]</p>
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## ANNEX IX

### OFFICIAL BULLETIN OF ANALYSIS OF POTATO PROPAGATION MATERIAL

#### IDENTIFICATION OF THE OFFICIAL LABORATORY

NAME:	
CNPJ / CPF:	Registration/Accreditation in RENASEM N°:
ADDRESS:	
City/UF	CEP:
Email:	Telephone:

#### IDENTIFICATION OF THE SENDER

NAME:	CNPJ:
ADDRESS:	
CITY/UF:	CEP:

#### IDENTIFICATION OF THE INSPECTION BODY

Term of Inspection N°		Sample Collection Term N°	
Customs Clearance Visa N°		Country of provenance:	
Specie	Cultivar	Category	
SAMPLE			
N°	Collection date	Size of the sample	Receipt on
BACTH REPRESENTATIVITY			
FIELD N°	BATCH N°	Type of package	N° of packages
			Weight per package (Kg)

PARAMETERS	Occurrence (%)
<i>Rhizoctonia solani</i> J.G. Kuhn = <i>Thanatephorus cucumeris</i> (A.B. Frank) Donk <sup>1</sup>	
<i>Streptomyces</i> spp. <sup>1</sup>	
<i>Spongospora subterranean</i> (Wallr.) Lagerh. <sup>1</sup>	
<i>Cylindrocladium</i> spp. <sup>1</sup>	
<i>Helminthosporium solani</i> Durieu & Mont. <sup>2</sup>	
<i>Ralstonia solanacearum</i> (Smith 1896) Yabuuchi et al.	
<i>Pectobacterium</i> spp. <sup>3</sup> ; <i>Dickeya</i> spp. <sup>3</sup> ; <i>Pythium</i> spp. <sup>3</sup>	
<i>Fusarium solani</i> f.sp. <i>eumartii</i> C.W. Carp. = <i>Haematonectria haematococca</i> (Berk. & Broome) Samuels & Rossmann	
<i>Phytophthora infestans</i> (Mont.) De Bary	
<i>Fusarium</i> spp. <sup>3</sup> ( <i>Fusarium dry rot</i> )	
<i>Alternaria solani</i> , <i>A. grandis</i> e <i>A. alternata</i>	
<i>Meloidogyne</i> spp. <sup>3</sup>	
<i>Pratylenchus</i> spp. <sup>3</sup>	
Aphids *report in absolute number	
Damage from <i>Phthorimaea operculella</i> Zeller	
Damage from other insects	
Black heart; chocolate stain	
Vitrified tuber; defoliant damage; burn	
Beating, cutting, skinning	
PVX	
PVY	
PLRV	
PVS <sup>4</sup>	
Total of viruses	

<sup>1</sup> It will be considered infected when the symptom exceeds 1/3 of the surface of the tuber.

<sup>2</sup> It will be considered infected when the tuber presents more than 1/3 of its surface with silver and wilted lesion.

<sup>3</sup> Except for absent quarantine pests.

<sup>4</sup> When required, for inspection of the Clonal Garden.

COMMENTS:

[Local] / [Date]

[signature of laboratory RT]

\_\_\_\_\_  
[name of laboratory RT]

RENASEM N° [number of RENASEM]

CREA N° [number of CREA]

## ANNEX X

### PRODUCTION AND COMMERCIALIZATION MAP OF POTATO PROPAGATION MATERIAL

Producer:

RENASEM N°

Specie:  Harvest:  Semester/Year:

BASIC PLANT CLONAL GARDEN       MATERNAL PLANT CLONAL GARDEN       PRODUCTION FIELD

**TYPE OF PROPAGATION MATERIAL:**

Cultivar	Category	Area		Production (ton or units)						Other destinations	Balance
		Planted	Harvested	Estimated	Harvested	Processed	Approved	Commercialized			
								In the UF	Other UF <sup>1</sup>		

<sup>1</sup> Must be informed the quantity followed by the acronym of the unit of the destination federation.

COMMENTS:

Location / date

\_\_\_\_\_  
Signature and Identification of Producer