GEVES PRICE LIST 2023

vegetable - ornamental - aromatic - fruit

Variety and Seed Study and Control Group

GEVES

Expertise & Performance

www.geves.fr

GEVES
Expertise & Performance

SUMMARY

GEVES: A unique &

GEVES is a **Public Interest Group** with three founding partner organisations:

- The French National Research Institute for Agriculture, Food and Environment (INRAE)- 60%
- The French Ministry of Agriculture and Food (MAA) - 20%
- The French Interprofessional Organisation for Seeds and Plants - 20%

This unique set-up ensures GEVES's **independence** and **neutrality** in carrying out its activities in accordance with its regulatory and official missions and mandates.The union of state, research and sector expertise ensures that all aspects of the sector are fully taken into account.

Governance of GEVES

GEVES's Executive Board of Directors is composed of 13 members:

6 representatives from INRAE

2 representatives from the Ministry of Agriculture and Food

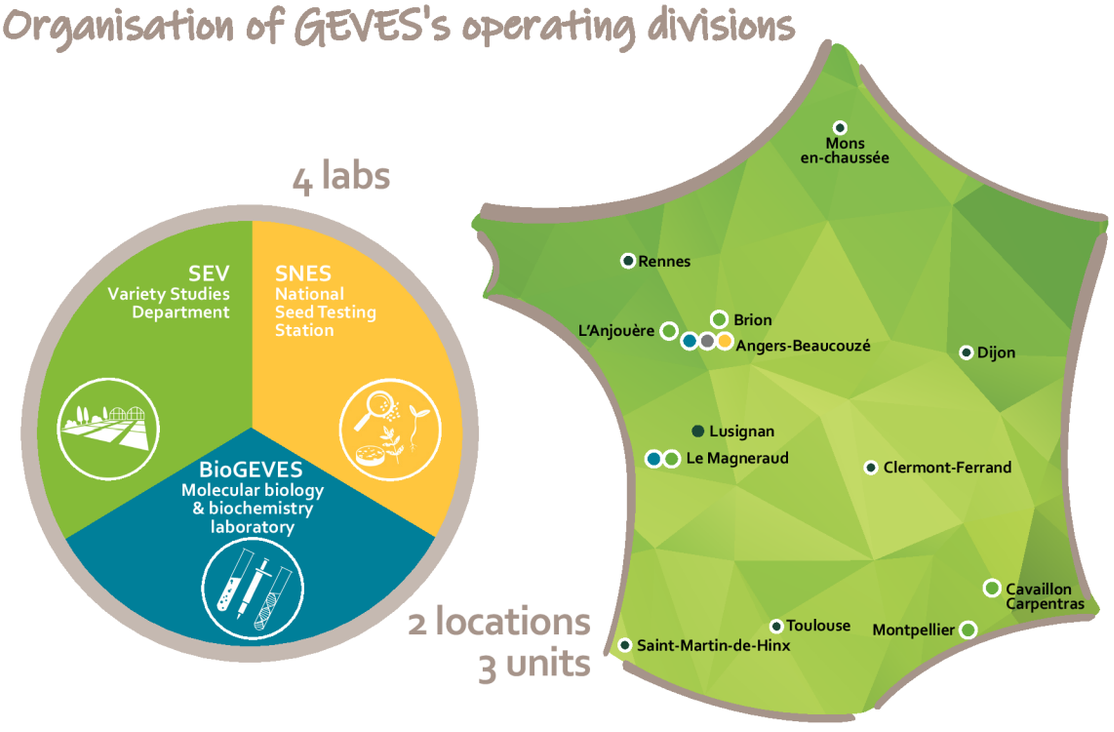
2 representatives from GNIS

2 staff representatives from GEVES

The President of the CTPS

as well as a government controller (Ministry of Research) and a State Controller.

Organisation of GEVES's operating divisions



GEVES's missions

GEVES has official, regulatory missions and carries out testing activities and methodological development which is necessary for:

- National listing of new varieties in the Official French Catalogue
- Plant variety protection
- Official seed testing as part of its NRL mandates for seeds, GMOs. and plant health (RNQP-matrix seeds)

GEVES is also responsible for the national coordination of plant genetic resources on behalf of the Ministry of Agriculture.

GEVES is the National Reference Laboratory for:

- GMO detection: GMOs in maize (seed) and soya, rapeseed and flax (seed and vegetative parts) by Decree of 19 octobre 2015
- quality testing of seeds and propagating material by Decree of 1 March 2017
- in the field of plant health by Decree of 20 November 2020

GEVES is an approved laboratory for certain seed health quality tests

GEVES is accredited by ISTA for all species. It carries out official testing, particularly for seed exports: for phytosanitary passports and certificates as well as Orange and Blue International Certificates (OIC and BIC).

GEVES makes its specialised expertise openly available to the plant and seed sectors, providing high-quality services to a range of private customers.

Activities

To carry out its missions, GEVES performs a wide range of activities:

- Description of varieties and evaluation of genetic progress
- Quality testing for seeds and seedlings
- Methodological research
- Management of plant genetic resources
- Training courses
- Exams
- Consulting and expertise
- International cooperation
- Monitoring of the French network of seed testing laboratories
- Organisation of Proficiency Tests (PT)
- Communication

FOCUS

Quality, Recognition & Accreditation

GEVES benefits from a global and harmonised Quality Management System.

GEVES is recognised as follows:

- Certification ISO 9001: version 2015 - BioGEVES and VCUS variety testing (Value for Cultivation, Use and Sustainability) since 2009

- Accreditation of GEVES's SNES and BioGEVES laboratories by Cofrac according to ISO 17025 standard:
  - GEVES Beaucouzé: Cofrac N°1-1316 (since 2002).
  - GEVES Le Magneraud: Cofrac N°1-6176 (since 2004).
- Accreditation by ISTA since 2001 (N°FRDL0200) for seed testing
- Entrusted by the CPVO for DUS variety testing since 2012.

Place an order

Seed quality testing
SNES

ORDER YOUR ANALYSE ONLINE

http://dsn.geves.info

- Enter your order
- Print the order summary and attach it to to your sample

For faster processing of your request, please order online

SEND YOUR ORDER VIA POST

- Complete the form corresponding to your order (BIO request or analysis order form) and attach the form to your sample

- Send the sample to:

GEVES - Service clients SNES
3 rue Henri Becquerel - CS 90024
49071 Beaucouzé Cedex
FRANCE

Biomolecular and biochemical testing
BioGEVES

ORDER YOUR ANALYSE ONLINE

biogeves.analyses@geves.fr

SEND YOUR ORDER VIA POST

- Send the sample to:

Detection Unit

BioGEVES
3 rue Henri Becquerel - CS 90024
49071 Beaucouzé Cedex
FRANCE

Genotyping/Biochemistry Unit

BioGEVES - Le Magneraud
CS 40052 - Saint-Pierre d'Amilly
17 700 Surgères
FRANCE

Variety testing at the SEV

REQUEST A FIELD TEST
DUS (Distinction Uniformity Stability)

celine.delarue@geves.fr

GEVES - Service clients SEV
25 rue Georges Morel - CS 90024
49071 Beaucouzé Cedex
FRANCE

Your contacts at GEVES

To contact a GEVES staff member by email: *firstname.surname@geves.fr - area code number: +33(0). .. ..*

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- Radiography 2D/3D
- Purity, micro-cleaning
- Water content
- Botanic

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- Floral, vegetable, woody, pulses and forest species
- Beetroot, vegetable, forage grasses
- Agricultural crop species
-

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- Seed health
- Variety resistance
- Seed treatment evaluation

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SEV Customer Service
Céline Delarue
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(field trials)

Supply of samples to the SNES

The following information, listed on the SNES order form, is essential for processing seed samples:

- Treated seed and trade name of product. No treated sample will be accepted for analysis without this information.
- Thousand Seed Weight (TSW). This information is necessary to calculate the weight of sub-samples for bacteriology, mycology and virology. If this information is not indicated, it will be invoiced.
- Sample size. Unless indicated differently, the sample size to be provided is expressed in number of seeds. If the quantity supplied is less than the quantity requested, the analysis will be carried out on all the seed supplied.

The sample size indicated is the minimum size set by the method (larger sizes can be offered).

If you do not have the quantity requested and wish to have the analysis done on all the seeds sent, you must indicate this in your request.

Otherwise, the analysis will be put on hold, and we will contact you. You can then:

- send a new sample
- give us your agreement to carry out the analysis on all the seeds supplied.

Please take care to send your seeds in anonymous boxes and/or paper sachets without any labels or commercial names.

The analyses are not performed on GMO samples.

If you wish to make an analysis that is not listed in the price list (species, particular methods, etc.), contact Customer Services who will define with you the work that is adapted to your needs, the feasibility and the cost.

PHYSICAL AND PHYSIOLOGICAL QUALITY

The SNES always works in compliance with the ISTA Rules, offering the same level of reliability of results, whatever the final certificate requested.

Physical quality: Provide the minimum weight prescribed in the ISTA Rules, Table 2C Column 3. If you are requesting several analyses of counting of all other seeds on the same sample, please provide the necessary quantities for these severals tests.

For moisture analysis, the maximum time for receiving the submitted samples is 14 days after seed lot sampling.

Physiological quality: Germination test is carried out on a sample of 400 seeds in accordance with the ISTA Rules. Tests on 200 or 100 seeds are also possible depending on the need for precision. The precision of analyses is indicated in the ISTA tolerance tables.

If a germination test is requested without any specific purity analysis, pure seeds are sorted before the germination test. This analysis is not invoiced except for Grasses (*Poaceae*). This step is an integral part of the ISTA method for the evaluation of germinative faculty.

Quantity to provide for substrate checks, the retest is included in the quantities:

	Top of paper	Rolled	Pleated paper	Sand	Organic growing media
GE-SUB-1	20 sheets	12 sheets	12 sheets	10 kg	8 kg
GE-SUB-2	20 sheets	10 sheets	10 sheets	1 kg	1 kg
GE-SUB-3	16 sheets	10 sheets	2 sheets	1 kg	1 kg
GE-SUB-4	96 sheets	16 sheets	16 sheets	12 kg	10 kg

SEED HEALTH

Please provide one sample per test requested with the corresponding quantity.

For OIC request, an ISTA method will be chosen if it exists.

Virology: Certain types of treatment may affect the analysis, seeds should therefore be sent untreated. If seeds has been treated with a virucidal product, please indicate this information on your order form.

Supply of samples to the SNES

Mycology:

This test is performed by detection on medium according to the following criteria:

- Without superficial disinfection for most species. If the presence of saprophytes is to high the result will be "undetermined", a new test with superficial disinfection will be proposed.

- With superficial disinfection for species that are known to have saprophytes that can compromise the analysis.

For treated seeds, a test without superficial disinfection is indicated in the price list and will be chosen.

As the method allows the detection of several pathogens simultaneously, the main pathogens are in bold in this price list and will always be indicated on the certificate. For pathogens not in bold they will be indicated on the certificate if their presence is high (> 5%) or if they were asked when the analyses were requested.

For any request for detection of other fungi, please contact SNES.

The nomenclature of fungi evolves; we therefore modify the names of pathogens to follow it. We will indicate any pathogen synonyms in brackets in the price list and test results.

In the nomenclature, "sp." means "unidentified species", "spp." means "all species" and the preceding name is the genus. If we cannot determine the species we will give as result the genus name followed by "sp.".

The denomination as sections has become obsolete, so the detection of *Fusarium*, apart from the identification (PA-ID-FUS), will be done by section classification. Some species-specific *Fusarium* will remain denominated with the species name (e.g. *F. oxysporum* on cucurbits).

Sections correspond to the classification of Nelson *and al.* ; 1983, amended by Burgess *and al.* ; 1994 and updated with molecular techniques (Leslie et Summerell ; 2006, Carter *and al.* ; 2000, Aoki et O'Donnel ; 1999, Benyon *and al.* ; 2000).

Former name	Current sections	Main species
Fusarium roseum	*Roseum*	*F. avenaceum*
	Discolor	*F. culmorum, F. graminearum (Gibberella zeae), F. roseum (F. sambucinum), F. crookwellense*
	Arthrosporiella	*F. incarnatum (Fusarium semitectum)*
Fusarium sp.	*Sporotrichiella*	*F. poae, F. tricinctum (Gibberella tricincta), F. sporotrichioides, F. langsethiae*
	Gibbosum	*F. equiseti (Gibberella intricans), F. acuminatum (Gibberella acuminata)*
Fusarium moniliforme	*Liseola ou complexe G. fujikuroi*	*Gibberella fujikuroi (F. verticillioides, F. subglutinans), F. proliferatum*
Fusarium oxysporum	*F. elegans*	*F. oxysporum*
Fusarium solani	*Martiella - Ventricosum*	*F. solani (Haematonectria haematococca)*

Order an analysis

To SNES

For SNES or COFRAC certificate [1]

	Price
By paper order form	
Handling of the request per submitted sample and issuing of a definitive SNES or COFRAC certificate, in French or English.	9.20
By internet on DSN website	
Handling of the request per submitted sample and issuing of a definitive SNES or COFRAC certificate, in French or English.	6.50
Specific handling	
Handling of the request per submitted sample sent in several packaging or weighing more than 2 kg requiring the preparation of a working sample, and issuing of a definitive SNES or COFRAC certificate, in French or English.	38.20
Supplementary certificates, specific presentation of results, priority	
Provisional certificate, in French or English.	4.00
Duplicate certificate, in French or English.	2.90
Summary table of results, or specific presentation of results.	30.00
Raw results on .csv file (request must be entered online on DSN website).	0.00
Priority processing, per sample.	18.00

*[1] A SNES certificate is issued by default, except for COFRAC accredited tests (indicated by a *) for which a COFRAC certificate will be issued.*

For an international certificate

	Price
By paper order form	
Handling of each submitted sample and issuing of an International Orange or Blue Certicate, in French or English, with priority being given to the related analyses. (EC-01 + SCLI-URBI + BU-ABIODE/BU-ABIBDE)	36.40
Supplementary certificates and request for changes	
Provisional international certificate, in French or English.	9.20
Duplicate international certificate, in French or English.	9.20
Adding additional certificates or modification of information on an international certificate (after checking the conformity with ISTA rules).	32.50

To BioGEVES

Handling and results

	Price
Handling	
Handling of the sample for treated seeds.	54.00
Results	
Duplicates analysis certificate except photography.	2.70
New edition of result certificate.	26.80
Specific presentation of results - Contact BioGeves.	/

SEED QUALITY

Physiological quality

		Size	Duration	Price
Germination test				
Supplement for an analysis in soil or sand if the primary support of the species is "top of" or "pleated" paper - on 400 seeds.	**GE-FG-SUP4**	/	/	**14.40**
Supplement for an analysis in soil or sand if the primary support of the species is "top of" or "pleated" paper - on 200 seeds.	**GE-FG-SUP2**	/	/	**7.50**
Complementary determinations in addition to the germination test				
Detailed description of seedlings and seeds on 400 seeds.	**GE-FG-DET**	1 250	/	**38.50**
Detailed description of seedlings and seeds on 200 seeds.	**GE-FG-DET2**	500	/	**19.30**
Percentage of a particular type of seedling.	**GE-FG-PCPL**	/	/	**21.40**
Provision of the result of repetitions.	**GE-FG-REP**	/	/	**12.40**
Additional testing time required				
Additional duration of 7 days for a germination test on 400 seeds.	**GE-FG-7S4**	1 250	/	**15.00**
Additional duration of 14 days for a germination test on 400 seeds.	**GE-FG-14S4**	500	/	**30.20**
Additional duration of 7 days for a germination test on 200 seeds.	**GE-FG-7S2**	500	/	**7.60**
Additional duration of 14 days for a germination test on 200 seeds.	**GE-FG-14S2**	500	/	**15.10**
Verification of species				
Verification of species after germination test.	**GE-ENR**	/	/	**8.70**
Tetrazolium viability test - For results within a week, reception of seeds on Tuesday at the latest.				
Tetrazolium test on 400 seeds (excluding ornamental and fruit species).	**GE-TZ-1**	500	/	**161.00**
Tetrazolium test on 200 seeds (excluding ornamental and fruit species).	**GE-TZ-2**	300	/	**107.00**
Tetrazolium test on 100 seeds (excluding ornamental and fruit species).	**GE-TZ-3**	200	/	**75.00**
Energy				
Germination energy (intermediate counting; germination capacity supplement). The date of counting for the energy varies according to the species.	**GE-EG**	500	/	**18.40**
Vigour tests				
Cold-test on 400 seeds.	**GE-CO**	1 250	/	**64.00**
Cold-test on 200 seeds.	**GE-CO2**	500	/	**41.00**
Accelerated ageing of 200 seeds including germination capacity.	**GE-VIEI-2**	500	/	**83.00**
Controlled deterioration of 200 seeds including germination capacity.	**GE-DET-1**	500	/	**83.00**
Conductivity test on 200 seeds on ISTA species. *The moisture content of seeds should be between 10 and 14 %, sample must be send in a sealed foil sachet with the indication of the water content, otherwise it would be determined by us before the test and invoiced (see test TE-SN-01).*	**GE-CON-GLO**	500	/	**53.00**
Additional cost for a conductivity test on a treated seed sample.	**GE-CON-SUP** NEW	/	/	**5.00**
Treatment of seeds				
Treatment of seeds to be performed by SNES. Seeds do not undergo fungicide treatment before the germination test unless specifically requested (except for Beet).	**GE-TRAIT**	/	/	**21.40**
Substrate checks				
Determination of the water holding capacity of a substrate including moisture content.	**GE-SUB-1**	See p.7	/	**85.00**
Determination of the pH of a substrate.	**GE-SUB-2**	See p.7	/	**55.00**
Determination of the conductivity of a substrate.	**GE-SUB-3**	See p.7	/	**55.00**
Assessment of the innocuity of a substrate (determination of the % of seedlings intoxicated by the substrate, on 2 sensitive species).	**GE-SUB-4**	See p.7	/	**124.00**
Viability determination of seeds in a soil or a substrate.	**GE-SUB-5**			Contact SNES
Validation of a new substrate for germination.	**GE-SUB-6**			Contact SNES
Automated germination kinetics by image analysis				
Germination kinetics by image analysis (average rate of germination, kinetic curve).	**GE-CI**			Contact SNES
Supply of detailed data on imbibition and early elongation of the root.	**GE-CI-4**			Contact SNES
Supply of seeds images during germination.	**GE-CI-5**			Contact SNES

Seed health - Prior operations

		Size	Duration	Price
Thousand-seed weight, if not indicated on the request for bacteriology, mycology and virology tests.	**PA-MMS**	/	/	**31.50**

Bacteriology - Uncoated seeds only

		Size	Duration	Price
Supplement fee for counting of colonies				
1 pathogen in 30 000 seeds.	**PA-BA-20**	30 000	/	**56.00**
More than 1 pathogen in 5 000 seeds.	**PA-BA-81**	5 000	/	**35.30**
More than 1 pathogen in 30 000 seeds.	**PA-BA-82**	30 000	/	**105.00**

Mycology - See p.8 "Seed health"

		Size	Duration	Price
***Fusarium* spp.**				
Identification of *Fusarium* species in addition to detection test.	**PA-ID-FUS**	/	19 days	**245.00**
Verticillium dahliae				
Agar method.	**PA-ES-VERT**	400	19 days	**97.00**
Supplement for spore counting, washing methods				
Counting by classes (0;1-10;11-100;>100).	**PA-MY-DCLA**	/	/	**59.00**
Counting by unit.	**PA-MY-DEN**	/	/	**96.00**

Nematology

		Size	Duration	Price
***Heterodera* group *schachtii*, *Heterodera* group *goettingiana*, *Heterodera* group *avenae*.**				
Detection and identification on soil samples.	**PA-NE-SOL1**	300 g	30 days	**175.00**

Other tests

		Size	Duration	Price
Resistance of fungal isolates to fungicides.	**PA-AD-01**			Contact SNES
Study of the efficacy of seed disinfection/treatment products on medium or by bioassay.	**PA-AD-02**			Contact SNES
Identification of pathogens isolated and provided on medium.	**PA-AD-IP**	2 boxes / isolates	19 days	**46.00**
Isolation of strains from symptoms.	**PA-ISOLEM**	/	/	**46.00**
Isolation of strains from seeds.	**PA-ISOSEM**	/	/	**98.00**
Identification of pathogens on plant material. Feasibility on a case-by-case basis. **Prices below are indicated for information. They will be charged depending on the observed symptoms.**	**PA-DI-PEC**			Contact SNES
Handling of the sample.	**PA-DI-PEC**	/	/	**52.00**
Identification based on symptoms.	**PA-DI-MICR**	/	/	**90.00**
Mycological identification after incubation.	**PA-DI-MY**	/	/	**185.00**
Bacteriological identification after incubation.	**PA-DI-BA**	/	/	**92.00**
Confirmation by pathogenicity test.	**PA-DI-PP**	/	/	**112.00**
Virological identification by immunological test.	**PA-DI-ELIS**	/	/	**199.00**
Virological identification virologic by biotest.	**PA-DI-IND**	/	/	**63.00**
Analytical Profile Index (API).	**PA-DI-API**	/	/	**175.00**
PCR.	**PA-DI-PCR**	/	/	**111.00**

EVALUATION OF VARIETIES

Determination of the identity and the varietal purity

		Size	Duration	Price
Standard protocol.	**SEV-CV**	/	/	**325.00**
Specific study.	**SEV-CV1**			Contact SEV

Genotyping by molecular biology

		Size	Duration	Price
Varietal identity control.	**BI-G-BM-SSR-CID-1**			Contact BioGEVES
Varietal comparison - SSR.	**BI-G-BM-SSR-COMP**			Contact BioGEVES
Genetic purity analysis - SSR - 180 g.	**BI-G-BM-SSR-PU-180**			Contact BioGEVES
Genetic purity analysis - SSR - 8 x 10 g.	**BI-G-BM-SSR-PUR-10**			Contact BioGEVES
Seed mixture detection.	**BI-G-BM-SSR-PUR-40**			Contact BioGEVES

* COFRAC assay

[40] Quarantine parasite

All Species

Genotyping by molecular biology

		Size	Duration	Price
Varietal purity analysis.	**BI-G-BM-SSR-PUR-90**			Contact BioGEVES
Varietal description - SSR.	**BI-G-BM-SSR-DVAR**			Contact BioGEVES
DNA extraction.	**BI-G-BM-EXT**			Contact BioGEVES
Varietal identity control - SNP.	**BI-G-BM-SNP-CID**			Contact BioGEVES
Hybrid Conformity - SNP.	**BI-G-BM-SNP-CONF**			Contact BioGEVES
Varietal comparison - SNP.	**BI-G-BM-SNP-COMP**			Contact BioGEVES
Genetic purity analysis - SNP.	**BI-G-BM-SNP-PUR**			Contact BioGEVES
Varietal description - SNP.	**BI-G-BM-SNP-DVAR**			Contact BioGEVES
Standardization of DNA concentration & distribution in plate.	**BI-G-CUST-GEN-3**			Contact BioGEVES
Analysis of genetic diversity.	**BI-G-CUST-GEN-2**			Contact BioGEVES
Migration run - Capillary sequencer - plate.	**BI-G-BM-RUN**			Contact BioGEVES
DNA assay.	**BI-G-BM-DOS**			Contact BioGEVES
Development of genotyping method.	**BI-G-METH**			Contact BioGEVES
Customised genotyping.	**BI-G-CUST**			Contact BioGEVES

Technological quality: biochemical tests

		Size	Duration	Price
SPEC - custom analysis.	**BI-B-CUST-DEV-SPEC**			Contact BioGEVES
RMN - custom analysis.	**BI-B-CUST-DEV-RMN**			Contact BioGEVES
CPG - custom analysis.	**BI-B-CUST-DEV-CPG**			Contact BioGEVES
NIRS - custom analysis.	**BI-B-CUST-DEV-NIRS**			Contact BioGEVES
HPLC - custom analysis.	**BI-B-CUST-DEV-HPLC**			Contact BioGEVES
Tannin content (assay by spectrophotometry).	**BI-B-SPEC-TAN-GEN**			Contact BioGEVES
Fatty acid composition.	**BI-B-CPG-AG-GEN**			Contact BioGEVES
Glucosinolate content (HPLC).	**BI-B-HPLC-GLU-GEN**			Contact BioGEVES
Antitrypsic activity.	**BI-B-SPECT-FAT-GEN**			Contact BioGEVES
Glucosinolate content (NIRS).	**BI-B-NIRS-NGLS**			Contact BioGEVES
Spectrochlorophyll.	**BI-B-SPEC-CHLO**			Contact BioGEVES
Customised biochemical molecule assays (NIRS model development, analytical chemistry...).	**BI-B-CUST**			Contact BioGEVES
Oil content (NMR).	**BI-B-RMN-H**			Contact BioGEVES
Water content (NMR).	**BI-B-RMN-E**			Contact BioGEVES

Other tests

		Size	Duration	Price
WDV virus detection test by PCR.	**BI-D-VIR-WDV**			Contact BioGEVES

PUBLICATIONS

		Price
Technical sheet for analysis of specific purity and counting of all other seeds		
Purity and determination of other seeds by number: methodology.	**AP-M-1**	**31.20**
Identification data sheet of seeds and other impurities		
Echinochloa crus-galli, Echinochloa colona, Panicum capillare, Panicum maximum, Setaria pumila, Setaria veridis.	**AP-A-01**	**31.20**
Avena fatua-Avena sativa.	**AP-A-02**	**31.20**
Germination analysis method sheet		
Germination method of different species.	**GE-M-ESP**	**7.60**
Identification data sheet of seeds and other impurities		
Polygonaceae (*Persicaria maculosa*, *Persicaria lapathifolia*, *Fallopia convolvulus*, *Polygonum aviculare*, *Rumex* sp., *Rumex acetosella, Rumex maritimus*).	**AP-A-03**	**31.20**
Chenopodium sp., *Atriplex* sp., *Amaranthus* sp., *Reseda* sp., *Myosotis* sp.	**AP-A-04**	**31.20**
Asteraceae (*Anthemis arvensis*, *Glebionis segetum*, *Chicorium* sp., *Tripleurospermum inodorum*, *Helminthotheca echioïdes*, *Lapsana communis*, *Lactuca sativa*, *Sonchus* spp., *Cirsium arvense*, *Cirsium vulgare*, *Centaurea cyanus*).	**AP-A-06**	**31.20**
Cuscuta spp.	**AP-P-1**	**31.20**
Claviceps purpurea - Sclerotinia sclerotiorum.	**AP-P-2**	**31.20**

		Price
Self-control kit		
On request, components are sent separately accompanied with an instructional material. Contact SNES.	**KIT-AUTO**	**/**
I.D.Seed® On-line picture library, an aid to the identification of seeds - In French		
I.D.Seed® - Complete collection. Resgistration on http://mediatheque.geves.fr	**IDSEED-1**	**0.00**
Identification data sheet of fungal pathogens		
One data sheet per pathogen.Contact SNES for a list of available pathogens.	**PA-T-PATH**	**32.10**
Identification data sheet of nematodes		
One data sheet per nematodes. Contact SNES for a list of available nematodes	**PA-T-NEM**	**32.10**
Identification data sheet of fungal saprophytes		
Sheet containing the main fungal saprophytes present in analysis on media.	**PA-T-SAPR**	**54.00**

SEED QUALITY

Physical quality

		Size	Duration	Price
Calibration - Provide seeds in sealed foil sachets				
ISTA method (Denker device): inferior or equal to 6 grills.	**MN-DK-CAL1**	/	/	**39.60**
ISTA method (Denker device): superior or equal to 6 grills.	**MN-DK-CAL2**	/	/	**51.00**
Thousand-seed weight (on purity test performed by SNES)				
Thousand-seed weight on pure seeds.	**MMS-01**	/	/	**31.50**
Purity analysis test				
Purity - **Vegetables**	**PU-IS-18**	ISTA weight	/	**31.70**
Percentage of a specific type of other seeds. **Specify the search to be performed.**	**PU-CONS1**	/	/	**8.60**
Percentage of a specific type of inert materials. **Specify the search to be performed.**	**PU-CONS2**	/	/	**8.60**
Purity analysis test				
Supplement for purity analysis if received as raw seeds or a very dirty sample.	**PU-LB-SUP** NEW	/	/	**30.00**
Counting of all other seeds				
Full counting - **Vegetables.**	**SP-IS-17**	ISTA weight	/	**131.00**
Counting of other seeds on purity weight. Indication of the number of other seeds in the specific purity test.	**PU-SP-01**	/	/	**12.80**
Limited counting of all other seeds				
Searching of 1 to 4 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-01**	ISTA weight	/	**61.00**
Searching of 5 to 8 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-02**	ISTA weight	/	**97.00**
Searching of more than 8 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-20**			Contact SNES
Searching of *Orobanche* sp. **Only on UNTREATED and UNCOATED seeds.** Analyse performed on a separate, sealed, submitted subsample.	**SP-ORO**	ISTA weight	/	**71.00**
Searching of *Striga* sp. **Only on UNTREATED and UNCOATED seeds.** Analyse performed on a separate, sealed, submitted subsample.	**SP-STRIGA**	ISTA weight	/	**71.00**
Searching of *Orobanche* sp. and *Striga* sp. **Only on UNTREATED and UNCOATED seeds.** Analyse performed on a separate, sealed, submitted subsample.	**SP-ORO-STR**	ISTA weight	/	**105.00**
Tests on coated seeds				
Purity of coated seeds.	**PU-IS-21**	2 500	/	**32.70**
Pelleting material removal and full counting on 2 500 coated seeds. **Only on UNTREATED seeds.**	**SP-ENR2500**	2 500	/	**97.00**
Pelleting material removal and full counting on 7 500 coated seeds. **Only on UNTREATED seeds.**	**SP-ENR-TOT**	7 500	/	**294.00**
Pelleting material removal and limited counting of other seeds from 1 to 3 botanical species, on 7 500 coated seeds. **Only on UNTREATED seeds.**	**SP-ENR-LIM**	7 500	/	**230.00**
Moisture content - Provide seeds in sealed foil sachets from which as much air as possible has been extracted				
Oven method.	**TE-SN-01**	ISTA weight	/	**19.70**
Identification of individual seeds				
Visual identification by species.	**ID-IS-01**	/	/	**33.00**

Physiological quality

		Size	Duration	Price
Germination test on 400 seeds				
Vegetables (excluding corn salad).	**GE-FG-18-4**	1 250	/	**60.00**
Corn salad. *The germination capacity tests of corn salad seeds are carried out using several methods on 400 seeds: 2 methods with and without sodium hypochlorite disinfection from January 1st to May 31st and 2 methods with and without sodium hypochlorite disinfection and gibberellin from June 1st to December 31st.*	**GE-FG-22-4** NEW	1 250	/	**61.00**
Germination test on 200 seeds				
Vegetables.	**GE-FG-18-2**	500	/	**48.30**
Germination test on 100 seeds				
Vegetables.	**GE-FG-18-1**	500	/	**29.00**
Additional				
Additional cost for manual sowing of fragile seeds of bean.	**GE-FG-HAR** NEW		/	**6.50**

* COFRAC assay [40] Quarantine parasite

Vegetables

Physiological quality

		Size	Duration	Price
Germination tests on bulbs and bulblets				
On 400 seeds.	**GE-BULB-4**	1 250	/	**140.00**
On 200 seeds.	**GE-BULB-2**	500	/	**113.00**
Lettuce specific cold-test				
On 400 seeds.	**GE-EGFG-4**	1 250	/	**85.00**
On 200 seeds.	**GE-EGFG-2**	500	/	**50.00**
Verification of species				
Verification of species after germination test.	**GE-ENR**	/	/	**8.70**
Vigour tests				
Conductivity test on 200 seeds on ISTA species. *The moisture content of seeds should be between 10 and 14 %, sample must be send in a sealed foil sachet with the indication of the water content, otherwise it would be determined by us before the test and invoiced (see test TE-SN-01).*	**GE-CON-GLO**	500	/	**53.00**
Usable plants test				
Determination of the rate of usable **Tomato** plants on 400 seeds.	**GE-TX-PL-2**	500	/	**97.00**
Determination of the rate of usable **Tomato** plants on 200 seeds.	**GE-TX-PL-1**	300	/	**74.00**
Treatment of seeds				
Treatment of seeds to be performed by SNES. Seeds do not undergo fungicide treatment before the germination test unless specifically requested (except for Beet).	**GE-TRAIT**	/	/	**21.40**

Bacteriology - Uncoated seeds only

		Size	Duration	Price
Brassicaceae (Cabbage, Cauliflower, Broccoli, Radish, Turnip) - Detection of 1 pathogen				
***Xanthomonas campestris* pv. *campestris* (Xcc)**				
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-019a without counting of colonies).	**PA-BA-04**	30 000	36 days	**203.00**
Disinfected seeds . Grinding + agar method + pathogenicity test in case of suspect colonies (ISTA 7-019b without counting of colonies).	**PA-BA-105**	30 000	36 days	**242.00**
Agar method + counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-019a).	**PA-BA-03**	30 000	36 days	**214.00**
Disinfected seeds . Grinding + agar method + counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-019b).	**PA-BA-05**	30 000	36 days	**255.00**
***Xanthomonas campestris* pv. *armoraciae (raphani)* (Xca)**				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-29**	30 000	36 days	**195.00**
Disinfected seeds. Grinding + agar method + pathogenicity test in case of suspect colonies.	**PA-BA-30**	30 000	36 days	**242.00**
***Pseudomonas syringae* pv. *maculicola* (Psm)**				
Disinfected seeds. Grinding + agar method + pathogenicity test in case of suspect colonies.	**PA-BA-33**	30 000	36 days	**246.00**
Brassicaceae (Cabbage, Cauliflower, Broccoli, Radish, Turnip) - Detection of 2 pathogens.				
Xcc + Xca				
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-019a without counting of colonies for Xcc and Xca).	**PA-BA-06**	30 000	36 days	**246.00**
Disinfected seeds. Grinding + agar method + pathogenicity test in case of suspect colonies (ISTA 7-019b without counting of colonies for Xcc).	**PA-BA-07**	30 000	36 days	**292.00**
Xcc + Psm				
Agar method + pathogenicity test in case of suspect colonies colonies (ISTA 7-019a without counting of colonies for Xcc).	**PA-BA-45**	30 000	36 days	**300.00**
Xca + Psm				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-46**	30 000	36 days	**300.00**
Brassicaceae (Cabbage, Cauliflower, Broccoli, Radish, Turnip) - Detection of 3 pathogens.				
Xcc + Xca + Psm				
Agar method + pathogenicity test in case of suspect colonies colonies (ISTA 7-019a without counting of colonies for Xcc and Xca).	**PA-BA-08**	30 000	36 days	**350.00**
Carrot				
Candidatus liberibacter solanacearum				
Detection by PCR.	**PA-BA-CAND**	20 000	10 days	**125.00**
Xanthomonas hortorum* pv. *carotae				
Agar method with counting of colonies and PCR in case of suspect colonies (ISTA 7-020).	**PA-BA-02**	30 000	31 days	**296.00**

* COFRAC assay

[40] Quarantine parasite

Bacteriology - Uncoated seeds only

		Size	Duration	Price
Carrot, Celery, Fennel, Parnship				
Xanthomonas hortorum* pv. *carotae				
Agar method and PCR in case of suspect colonies (in house method ANA/PAT/QS/BA/MO/004)	**PA-BA-01**	30 000	31 days	**284.00**
Carrot, Celery, Fennel, Parnship - Supplement fee pathogenicity test				
Xanthomonas hortorum* pv. *carotae				
Confirmation by pathogenicity test of PCR positive isolates.	**PA-PP-XHC**	/	60 days	**123.00**
Cucurbits (Squash, Cucumber, Melon, Watermelon) - Detection of 1 pathogen				
Xanthomonas cucurbitae				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-86**	5 000	37 days	**332.00**
Pseudomonas viridiflava				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-93**	5 000	26 days	**332.00**
Acidovorax citrulli				
SE-PCR, ISF method current version. Confirmation of viability and pathogenicity is possible by grow-out on a new sample of 10 400 seeds.	**PA-BA-1121**	10 000	10 days	**187.00**
	PA-BA-1122	30 000	10 days	**310.00**
Grow-out, PCR or pathogenicity test in case of suspect symptoms.	**PA-BA-112**	10 400	37 days	**424.00**
Cucurbits (Squash, Cucumber, Melon, Watermelon) - Detection of 2 pathogens				
Pseudomonas syringae* pv. *lachrymans* + *Pseudomonas syringae* pv. *peponis				
Agar method + pathogenicity test and/or identification of strains by PCR in case of suspect colonies.	**PA-BA-89**	5 000	36 days	**360.00**
Cucurbits (Squash, Cucumber, Melon, Watermelon) - Detection of 3 pathogens				
Pseudomonas syringae* pv. *lachrymans* + *Pseudomonas syringae* pv. *peponis* + *Xanthomonas cucurbitae				
Agar method + pathogenicity test and/or identification of strains by PCR in case of suspect colonies.	**PA-BA-89-1**	5 000	40 days	**450.00**
Bean - Detection of 1 pathogen				
***Xanthomonas axonopodis* pv. *phaseoli* (*Xanthomonas phaseoli* pv. *phaseoli*) and *Xanthomonas axonopodis* pv. *phaseoli* var. *fuscans* (*Xanthomonas citri* pv. *fuscans*) (Xap/Xff)**				
Agar method, identification of strains by qPCR in case of suspect colonies (in house method ANA/PAT/ANS/MO/015 derived from Anses MOA 030*).	**PA-BA-13-2**	5 000	26 days	**177.00**
	PA-BA-13-4	30 000	26 days	**400.00**
Agar method with counting of colonies + identification of strains by PCR in case of suspect colonies (ISTA 7-021 option 2).	**PA-BA-12**	5 000	35 days	**214.00**
***Pseudomonas savastanoi* pv. *phaseolicola* (Psp)**				
Agar method + identification of strains by qPCR in case of suspect colonies (method derived from Anses BHs/99/02).	**PA-BA-34-2**	5 000	29 days	**200.00**
***Pseudomonas savastanoi* pv. *phaseolicola* (Psp)**				
Agar method with counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-023).	**PA-BA-44**	5 000	34 days	**235.00**
Bean - Detection of 2 pathogens				
Xap/Xff + Psp				
Detection and identification on symptoms (leaves or pods) by PCR.	**PA-BA-94**	/	14 days	**262.00**
SE-PCR, in house method ANA/PAT/QS/BA/MO/015. Confirmation of viability and pathogenicity by dilution-plating method on a new sample is possible.	**PA-BA-13-5**	5 000	15 days	**290.00**
Agar method + identification of strains by qPCR in case of suspect colonies (in house method ANA/PAT/QS/BA/MO/015 derived from Anses MOA 030* and in house method derived from BHs/99/02 respectively).	**PA-BA-15-2**	5 000	29 days	**271.00**
	PA-BA-15-4	30 000	29 days	**520.00**
Psp + Pss				
Agar method + PCR/pathogenicity test in case of suspect colonies (method derived from Anses BHs/99/02).	**PA-BA-50**	5 000	31 days	**278.00**

* COFRAC assay [40] Quarantine parasite

Bacteriology - Uncoated seeds only

			Size	Duration	Price
Bean - Detection of 3 pathogens					
Xap/Xff + Psp + Pss					
Agar method + identification of strains pathogenicity test and/or qPCR in case of suspect colonies (in house method derived from Anses BHs/99/02 and in house method ANA/PAT/QS/BA/MO/015 derived from Anses MOA 030* respectively).	**PA-BA-17**		5 000	39 days	**330.00**
	PA-BA-18		30 000	39 days	**620.00**
Bean - Supplement fee pathogenicity test					
Xap/Xff					
Confirmation by pathogenicity test of PCR positive.	**PA-PP-XAP**		/	21 days	**67.00**
Psp					
Confirmation by pathogenicity test of PCR positive.	**PA-PP-PSPH**	NEW	/	21 days	**72.00**
Lettuce - Detection of 1 pathogen					
***Xanthomonas vitians* (Xav)**					
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-95**		30 000	39 days	**187.00**
***Pseudomonas cichorii* (Pc)**					
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-97**		30 000	39 days	**190.00**
Lettuce - Detection of 2 pathogens					
Xav + Pc					
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-98**		30 000	39 days	**348.00**
Corn salad					
Acidovorax valerianellae					
Grow-out, symptoms observed on plantlets and confirmation by PCR in case of suspect plantlets. **For untreated seed, fungal treatment is systematically done in water added to vermiculite.**	**PA-BA-38**		10 000	39 days	**230.00**
Seeds that require dormancy breaking. Grow-out, symptoms observed on plantlets and confirmation by PCR in case of suspect colonies. **For untreated seed, a fungal treatment is systematically done in water added to vermiculite.**	**PA-BA-38-2**		10 000	46 days	**230.00**
Supplement for counting of foci.	**PA-BA-41**		/	/	**16.60**
Pea - Detection of 1 pathogen					
***Pseudomonas syringae* pv. *pisi* (Psp)**					
Agar method + pathogenicity test in case of suspect colonies (method derived from Anses BHs/99/03).	**PA-BA-21**		5 000	26 days	**181.00**
	PA-BA-70		15 000	26 days	**270.00**
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-029).	**PA-BA-21-1**		5 000	32 days	**190.00**
***Pseudomonas syringae* pv. *syringae* (Pss)**					
Agar method + pathogenicity test in case of suspect colonies (Anses BHs/99/03).	**PA-BA-22**		5 000	32 days	**195.00**
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-84**		15 000	32 days	**270.00**
Pea - Detection of 2 pathogens					
Psp + Pss					
Agar method + pathogenicity test in case of suspect colonies (Anses BHs/99/03).	**PA-BA-22-2**		5 000	36 days	**230.00**
	PA-BA-85		15 000	36 days	**350.00**
Pea - Supplement fee pathogenicity test					
Pseudomonas syringae* pv. *pisi					
Confirmation by pathogenicity test PCR positive isolates.	**PA-PP-PSP**		/	9 days	**72.00**
Tomato					
***Clavibacter michiganensis* subsp. *michiganensis* (Cmm)**					
SE-PCR, ISF current version.Confirmation of viability and pathogenicity by dilution-plating method on a new sample is possible	**PA-BA-23-6**	NEW	10 000	12 days	**170.00**
	PA-BA-23-7	NEW	30 000	12 days	**230.00**
Agar method. (ISF current version / Anses MA049*).	**PA-BA-23-1**		30 000	33 days	**325.00**
Agar method. (ISF current version / Anses MA049*). Analyse done with 1 subsample on 10 000 seeds maximum.	**PA-BA-23-2**	NEW	/	33 days	**228.00**
Supplement fee. Confirmation by pathogenicity test of PCR positive isolates*.	**PA-PP-CMM**		/	10 days	**47.00**
Tomato/Capsicum - Detection of 1 pathogen					
***Pseudomonas syringae* pv. *tomato* (Pst)**					
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-25**		30 000	36 days	**202.00**

* COFRAC assay

[40] Quarantine parasite

Vegetables

Bacteriology - Uncoated seeds only

			Size	Duration	Price
Tomato/Capsicum - Detection of 1 pathogen					
***Xanthomonas* spp. pathogenic on Tomato and Pepper (X spp)**					
Agar method + identification of strains by PCR in case of suspect colonies (ISF).	**PA-BA-26**		30 000	34 days	**210.00**
Agar method + identification of strains by PCR in case of suspect colonies (ISF). Analyse done with 1 subsample on 10 000 seeds maximum.	**PA-BA-26-1**	NEW	/	31 days	**150.00**
***Pseudomonas corrugata* (Pc)**					
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-92**		30 000	36 days	**273.00**
Tomato/Capsicum - Detection of 2 pathogens					
Pst + X spp					
Agar method + pathogenicity test and/or identification of strains by PCR in case of suspect colonies (ISF for *Xanthomonas*).	**PA-BA-40**		30 000	40 days	**320.00**
Cmm + X spp					
Agar method + identification of strains by PCR and/or pathogenicity test in case of suspect colonies (ISF for *Xanthomonas* and ISF current version/Anses MOA 049* tomato only).	**PA-BA-125**		30 000	33 days	**439.00**
Agar method + identification of strains by PCR and/or pathogenicity test in case of suspect colonies (ISF for *Xanthomonas* and ISF current version/Anses MOA 049* tomato only). Analyse done with 1 subsample on 10 000 seeds maximum.	**PA-BA-96-1**	NEW	/	33 days	**391.00**
Pst + Pc					
Agar method + identification of strains by pathogenicity test in case of suspect colonies.	**PA-BA-127**		30 000	36 days	**276.00**
Tomato/Capsicum - Detection of 3 pathogens					
Cmm + Pst + Pc					
Agar method + identification of strains by PCR and/or pathogenicity test in case of suspect colonies (ISF for *Xanthomonas* and ISF current version/Anses MOA 049* tomato only).	**PA-BA-96**		30 000	43 days	**562.00**
Agar method + identification of strains by PCR and/or pathogenicity test in case of suspect colonies (ISF for *Xanthomonas* and ISF current version/Anses MOA 049* tomato only). Analyse done with 1 subsample (10 000 seeds maximum).	**PA-BA-96-2**	NEW	/	43 days	**478.00**
Tomato/Capsicum - Supplement fee pathogenicity test					
X spp					
Confirmation by pathogenicity test of PCR positive isolates.	**PA-PP-XPP**		/	10 days	**70.00**

Mycology - See p.8 "Seed health"

			Size	Duration	Price
Alliaceae (Chive, Onion, Leek)					
Alternaria porri, Botrytis allii* and/or *aclada, Fusarium oxysporum, Pyrenochaeta terrestris (Setophoma terrestris),* *Fusarium* sp. (section *Liseola* and other sections), *Botrytis cinerea, Botrytis squamosa					
Agar method.	**PA-ES-OIG**		400	19 days	**97.00**
Asparagus					
***Fusarium oxysporum*, *Fusarium* (section *Discolour* and other sections), *Botrytis* sp.**					
Agar method.	**PA-ES-ASP**		400	19 days	**97.00**
Eggplant					
***Alternaria solani, Fusarium oxysporum, Fusarium solani,* *Fusarium* (other sections), *Colletotrichum* sp., *Phomopsis vexans, Botrytis* sp., *Verticillium* sp., *Rhizoctonia* sp., *Didymella* sp., *Stemphylium* sp.**					
Agar method.	**PA-ES-AUB**		400	19 days	**97.00**
Brassicaceae (Cabbage, Rape, Turnip, Radish, Rocket)					
***Leptosphaeria maculans* and/or *Plenodomus biglobosus (Phoma lingam), Alternaria brassicae, Alternaria brassicicola, Alternaria japonica, Sclerotinia sclerotiorum*, *Botrytis cinerea, Phoma* sp.**					
Agar method (derivated from ISTA method 7-004).	**PA-ES-CHO**		400	19 days	**97.00**
***Leptosphaeria maculans* and/or *Plenodomus biglobosus* (*Phoma lingam*)**					
Agar method (ISTA 7-004).	**PA-PH-CHO**		1 000	25 days	**242.00**
Albugo candida					
Seed wash method. **UNTREATED seeds only.**	**PA-ALB-CHO**		500	15 days	**94.00**
***Hyaloperonospora parasitica* (downy mildew)**					
Seed wash method. **UNTREATED seeds only.**	**PA-MI-CHO**		500	15 days	**94.00**
Grow-out method (viability testing).	**PA-MICHOGO**		400	42 days	**119.00**

Vegetables

Mycology - See p.8 "Seed health"

		Size	Duration	Price
Carrot				
Cercospora carotae				
Seed wash method. **UNTREATED seeds only.**	**PA-CE-CAR**	500	15 days	**94.00**
Alternaria dauci, Alternaria radicina (Stemphylium radicinum)				
Agar Method (ISTA 7-001b, 7-002b).	**PA-AL-CAR**	400	24 days	**96.00**
Alternaria dauci, Alternaria radicina (Stemphylium radicinum), *Fusarium* (all sections), *Phoma* sp., *Botrytis* sp.				
Agar method.	**PA-ES-CAR**	400	19 days	**97.00**
Septoria carotae				
Direct visual observation. **UNTREATED seeds only.** Analysis stopped at 400 seeds if positive.	**PA-SE-CAR**	1 000	15 days	**80.00**
Mycocentrospora acerina				
Seed wash method. **UNTREATED seeds only.**	**PA-MY-CAR**	500	15 days	**94.00**
Celery				
Septoria apiicola				
Direct visual observation. **UNTREATED seeds only.** Analysis stopped at 400 seeds if positive.	**PA-SE-CEL**	1 000	15 days	**80.00**
Cercospora apii				
Seed wash method. **UNTREATED seeds only.**	**PA-CE-CEL**	500	15 days	**94.00**
Alternaria dauci, Alternaria radicina, Botrytis cinerea, *Botrytis* sp., *Fusarium* (all sections)				
Agar method.	**PA-ES-CEL**	400	19 days	**97.00**
Cucumber				
Stagonosporopsis cucurbitacearum (Didymella bryoniae), Fusarium oxysporum, Fusarium solani, Alternaria cucumerina, Gloeosporium orbiculare (Colletotrichum orbiculare), *Fusarium* (other sections), *Phomopsis vexans*, *Botrytis* sp., *Cladosporium* sp.				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-COND**	400	19 days	**102.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-CON**	400	19 days	**97.00**
Squash				
Stagonosporopsis cucurbitacearum (Didymella bryoniae), Fusarium oxysporum, Fusarium solani, Alternaria cucumerina, Gloeosporium orbiculare (Colletotrichum orbiculare), *Fusarium* (other sections), *Phomopsis vexans*, *Botrytis* sp., *Cladosporium* sp.				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-COUD**	400	19 days	**102.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-COU**	400	19 days	**97.00**
Squash, Melon				
Pseudoperonospora cubensis				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-COUR**	500	15 days	**94.00**
Cress				
Alternaria brassicae, *Stemphylium botryosum, Botrytis* sp., *Phoma* sp., *Fusarium* (all sections)				
Agar method.	**PA-ES-CRE**	400	19 days	**97.00**
Hyaloperonospora brassicae (Peronospora brassicae)				
Seed wash method. **UNTREATED seeds only. Watercress *(Nasturtium)* seeds only.**	**PA-MI-CRE**	500	15 days	**94.00**
Spinach				
Peronospora farinosa **(downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-EPI**	500	15 days	**94.00**
Botrytis cinerea, Colletotrichum dematium, Fusarium oxysporum, *Fusarium* (other sections)				
Agar method.	**PA-ES-EPI**	400	19 days	**97.00**
Fennel				
Passalora punctum (Cercosporidium punctum)				
Seed wash method. **UNTREATED seeds only.**	**PA-CE-FEN**	500	15 days	**94.00**
Botrytis cinerea, *Fusarium* (all sections), *Alternaria radicina, Stemphylium botryosum (Pleospora tarda), Phoma* sp.				
Agar method.	**PA-ES-FEN**	400	19 days	**97.00**

Vegetables

Mycology - See p.8 "Seed health"

		Size	Duration	Price
Bean				
Colletotrichum lindemuthianum, Botrytis cinerea, Macrophomina phaseolina, *Stemphylium botryosum, Boeremia exigua (Phoma exigua), Colletotrichum truncatum, Phyllosticta phaseolina, Fusarium* (all sections), *Rhizoctonia solani, Diaporthe phaseolorum, Sclerotinia sclerotiorum.*				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-HARD**	400	19 days	**102.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-HARM**	400	19 days	**97.00**
Colletotrichum lindemuthianum				
Blotter roller method (ISTA 7-006).	**PA-ESI-HAR**	400	19 days	**106.00**
Lettuce				
Septoria lactucae				
Direct visual observation. **UNTREATED seeds only.**	**PA-SE-LAI**	1 000	15 days	**80.00**
Alternaria dauci, Microdochium panattonianum (Marssonina panattoniana), *Stemphylium* sp., *Botrytis* sp., *Verticillium* sp., *Fusarium* (all sections)				
Agar method.	**PA-ES-LAI**	400	19 days	**97.00**
Corn salad				
Peronospora valerianellae **(downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-MAC**	500	15 days	**85.00**
Grow-out method (viability testing).	**PA-OUT-MAC**	400	42 days	**107.00**
Stagonosporopsis valerianellae (Phoma valerianellae), Botrytis cinerea, *Fusarium* (all sections)				
Agar method.	**PA-ES-MAC**	400	28 days	**97.00**
Melon				
Stagonosporopsis cucurbitacearum (Didymella bryoniae), Gloeosporium orbiculare (Colletotrichum orbiculare), Fusarium solani, Fusarium oxysporum, *Fusarium* (other sections), *Alternaria cucumerina, Botrytis* sp., *Cladosporium* sp.				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-MELD**	400	19 days	**102.00**
Stagonosporopsis cucurbitacearum (Didymella bryoniae), Gloeosporium orbiculare (Colletotrichum orbiculare), Fusarium solani, Fusarium oxysporum, *Fusarium* (other sections), *Alternaria cucumerina, Botrytis* sp., *Cladosporium* sp.				
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-MEL**	400	19 days	**97.00**
Onion				
Peronospora destructor **(downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-OIG**	500	15 days	**94.00**
Urocystis colchici (Urocystis cepulae) **(smut)**				
Seed wash method. **UNTREATED seeds only.**	**PA-CH-OIG**	500	15 days	**94.00**
Onion (bulblets)				
Alternaria porri, Botrytis allii **and/or** ***aclada, Stromatinia cepivora (Sclerotium cepivorum), Fusarium oxysporum, Pyrenochaeta terrestris (Setophoma terrestris),*** *Fusarium* sp. (section *Liseola* and other sections), *Botrytis cinerea, Botrytis squamosa*				
Agar method with superficial disinfection. **UNTREATED bublets only.**	**PA-ESOIGBD**	200	19 days	**106.00**
Agar method without superficial disinfection. **Treated bublets only.**	**PA-ES-OIGB**	200	19 days	**102.00**
Watermelon				
Stagonosporopsis cucurbitacearum (Didymella bryoniae), Fusarium oxysporum, Fusarium solani, Alternaria cucumerina, Gloeosporium orbiculare (Colletotrichum orbiculare), *Fusarium* (other sections), *Phomopsis vexans*, *Botrytis* sp., *Cladosporium* sp.				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-PASD**	400	19 days	**102.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-PAS**	400	19 days	**97.00**
Capsicum				
Phytophthora capsici				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-PIM**	500	15 days	**94.00**
Capsicum, Pepper				
Colletotrichum truncatum (Colletotrichum capsici), Fusarium oxysporum, *Fusarium* (all sections), *Colletotrichum coccodes, Sclerotinia sclerotiorum, Botrytis* sp., *Verticillium* sp.				
Agar method.	**PA-ES-POIV**	400	19 days	**97.00**

Vegetables

Mycology - See p.8 "Seed health"

		Size	Duration	Price
Leek				
Alternaria porri, Botrytis allii* and/or *Botrytis aclada, Sclerotinia minor, Fusarium moniliforme, Fusarium oxysporum, *Fusarium* (other sections), *Botrytis* sp., *Stemphylium* sp.				
Agar method.	**PA-ES-POR**	400	19 days	**97.00**
Pea				
Didymella pisi (Ascochyta pisi), Didymella pinodes (Mycosphaerella pinodes), Didymella pinodella (Phoma pinodella), *Stemphylium botryosum, Fusarium* (other sections), *Botrytis* sp., *Sclerotinia* sp., *Phoma* sp.				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-POID**	400	19 days	**102.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-POI**	400	19 days	**97.00**
***Peronospora viciae (Peronospora pisi)* (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-POI**	500	15 days	**94.00**
Didymella pisi (Ascochyta pisi)				
Agar method (ISTA 7-005).	**PA-ANT-POI**	400	19 days	**102.00**
Chickpea				
Mycosphaerella rabiei (Ascochyta rabiei), Botrytis cinerea, Fusarium oxysporum, *Fusarium solani, Fusarium* (other sections)				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-POCD**	400	19 days	**102.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-POC**	400	19 days	**97.00**
Radish				
***Hyaloperonospora parasitica (Peronospora parasitica)* (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-RAD**	500	15 days	**94.00**
Grow-out method (viability testing).	**PA-MIRADGO**	400	42 days	**119.00**
Rocket				
***Hyaloperonospora parasitica* (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-ROQL**	500	15 days	**94.00**
Tomato				
Alternaria solani, Fusarium oxysporum, *Fusarium solani, Colletotrichum coccodes, Botrytis cinerea, Fusarium* (all sections), *Didymella* sp., *Verticillium* sp., *Stemphylium* sp., *Rhizoctonia* sp., *Sclerotinia* sp.				
Agar method.	**PA-ES-TOM**	400	19 days	**97.00**

Nematology

		Size	Duration	Price
Carrot				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B*). **UNTREATED seeds only.** Test carried out on the whole submitted sample. **If the supplied quantity is too important, a new sample will be requested.**	**PA-NE-CAR**	70 g	16 days	**70.00**
Onion				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B*). **UNTREATED seeds only.** Test carried out on the whole submitted sample. **If the supplied quantity is too important, a new sample will be requested.**	**PA-NE-OIG**	70 g	16 days	**70.00**
Leek				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B*). **UNTREATED seeds only.** Test carried out on the whole submitted sample. **If the supplied quantity is too important, a new sample will be requested.**	**PA-NE-POI**	70 g	16 days	**70.00**
Pea				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B*). **UNTREATED seeds only.** Test carried out on the whole submitted sample. **If the supplied quantity is too important, a new sample will be requested.**	**PA-NE-POIS**	70 g	16 days	**70.00**

* COFRAC assay

[40] Quarantine parasite

Vegetables

Nematology

		Size	Duration	Price
Bulbs*, bulblets, corms, rhizomes, tubers				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B). **UNTREATED seeds only.** Test carried out on the whole submitted sample. **If the supplied quantity is too important, a new sample will be requested.**	**PA-NE-BULB**	50 units	16 days	**122.00**

Virology - Uncoated seeds only

		Size	Duration	Price
Eggplant				
Tomato black ring virus **(TBRV)**				
ELISA.	**PA-VI-37-1**	3 000	16 days	**148.00**
Carrot				
Alfalfa mosaic **(AMV)**				
ELISA.	**PA-VI-71**	2 000	16 days	**150.00**
Arabis mosaic virus **(ArMV)**				
ELISA.	**PA-VI-33-1**	3 000	16 days	**204.00**
Cucumber leaf spot carmovirus **(CLSV)**				
ELISA.	**PA-VI-35-1**	3 000	16 days	**203.00**
Tomato ringspot virus **(ToRSV)[40]**				
ELISA.	**PA-VI-38-1**	3 000	16 days	**150.00**
Celery				
Strawberry latent ringspot virus **(SLRSV)**				
ELISA.	**PA-VI-36**			Contact SNES
***Cucumis* sp.**				
Arabis mosaic virus **(ArMV)**				
ELISA.	**PA-VI-33-1**	3 000	16 days	**204.00**
Cucumber leaf spot carmovirus **(CLSV)**				
ELISA.	**PA-VI-35-1**	3 000	16 days	**203.00**
Cucumber mosaic virus **(CMV)**				
ELISA.	**PA-VI-56**	2 000	16 days	**225.00**
Tobacco ringspot virus **(TRSV)[40]**				
ELISA.	**PA-VI-39-1**	3 000	16 days	**148.00**
Tomato ringspot virus **(ToRSV)[40]**				
ELISA.	**PA-VI-38-1**	3 000	16 days	**150.00**
Zucchini yellow mosaic virus **(ZYMV)**				
ELISA.	**PA-VI-40-1**	3 000	16 days	**235.00**
***Cucurbita* sp., *Citrulus* sp.**				
Arabis mosaic virus **(ArMV)**				
ELISA.	**PA-VI-33**	2 000	16 days	**228.00**
Cucumber leaf spot carmovirus **(CLSV)**				
ELISA.	**PA-VI-35**	2 000	16 days	**228.00**
Tobacco ringspot virus **(TRSV)[40]**				
ELISA.	**PA-VI-39**	2 000	16 days	**239.00**
Tomato black ring virus **(TBRV)**				
ELISA.	**PA-VI-37**	2 000	16 days	**161.00**
Tomato ringspot virus **(ToRSV)[40]**				
ELISA.	**PA-VI-38**	2 000	16 days	**228.00**
Zucchini yellow mosaic virus **(ZYMV)**				
ELISA.	**PA-VI-40**	2 000	16 days	**235.00**
Squash leaf curl virus **(SLCV)**				
ELISA.	**PA-VI-77**			Contact SNES
Cucurbits - Detection of 1 pathogen				
Cucumber green mottle mosaic virus **(CGMMV)**				
ELISA (ISTA 7-026).	**PA-VI-01-1**	2 000	16 days	**171.00**
	PA-VI-51	10 000	16 days	**584.00**

* COFRAC assay

[40] Quarantine parasite

Virology - Uncoated seeds only

			Size	Duration	Price
Cucurbits - Detection of 1 pathogen					
Kyuri green mottle mosaic virus **(KGMMV)**					
ELISA.	**PA-VI-63**		2 000	16 days	**231.00**
Melon necrotic spot virus **(MNSV)**					
ELISA (ISTA 7-026).	**PA-VI-01-2**		2 000	16 days	**180.00**
ELISA.	**PA-VI-01-7**		9 400	16 days	**641.00**
Squash mosaic virus **(SqMV)**					
ELISA (ISTA 7-026).	**PA-VI-01**		2 000	16 days	**171.00**
Cucurbits - Detection of 2 pathogens					
SqMV + CGMMV					
ELISA (ISTA 7-026).	**PA-VI-01-3**		2 000	16 days	**276.00**
SqMV + MNSV					
ELISA (ISTA 7-026).	**PA-VI-01-4**		2 000	16 days	**276.00**
MNSV + CGMMV					
ELISA (ISTA 7-026).	**PA-VI-01-5**		2 000	16 days	**276.00**
CGMMV + KGMMV					
ELISA.	**PA-VI-64**		2 000	16 days	**293.00**
ELISA.	**PA-VI-87**	NEW	9 400	16 days	**1209.00**
Cucurbits - Detection of 3 pathogens					
SqMV + CGMMV + MNSV					
ELISA (ISTA 7-026).	**PA-VI-01-6**		2 000	16 days	**428.00**
SqMV + CGMMV + MNSV					
ELISA.	**PA-VI-95**	NEW	9 400	16 days	**1231.00**
Cucurbits - Detection of 4 pathogens					
SqMV + CGMMV + KGMMV + MNSV					
ELISA.	**PA-VI-65**		2 000	16 days	**549.00**
Spinach					
Beet mosaic virus **(BtMV)**					
ELISA.	**PA-VI-73**				Contact SNES
Bean - Detection of 1 pathogen					
Bean common mosaic virus **(BCMV)**					
ELISA on plantlets.	**PA-VI-02**		1 000	37 days	**280.00**
Bean common mosaic necrotic virus **(BCMNV)**					
ELISA on plantlets.	**PA-VI-03**		1 000	37 days	**286.00**
Pea early browning virus **(PEBV)**					
ELISA.	**PA-VI-53**		1 000	16 days	**219.00**
Tomato black ring virus **(TBRV)**					
ELISA.	**PA-VI-37**		2 000	16 days	**161.00**
Bean - Detection of 2 pathogens					
BCMV + BCMNV					
ELISA on plantlets.	**PA-VI-04**		1 000	37 days	**429.00**
Lettuce					
Arabis mosaic virus **(ArMV)**					
ELISA.	**PA-VI-33-1**		3 000	16 days	**204.00**
Cucumber leaf spot carmovirus **(CLSV)**					
ELISA.	**PA-VI-35-1**		3 000	16 days	**203.00**
Lettuce mosaic virus **(LMV)**					
ELISA.	**PA-VI-05**		10 000	16 days	**169.00**
	PA-VI-06		30 000	16 days	**330.00**
Tomato black ring virus **(TBRV)**					
ELISA.	**PA-VI-37-1**		3 000	16 days	**148.00**
Tobacco ringspot virus **(TRSV)[40]**					
ELISA.	**PA-VI-39-1**		3 000	16 days	**148.00**
Tomato ringspot virus **(ToRSV) [40]**					
ELISA.	**PA-VI-38-1**		3 000	16 days	**150.00**

* COFRAC assay

[40] Quarantine parasite

Virology - Uncoated seeds only

		Size	Duration	Price
Lettuce				
***Strawberry latent ringspot virus* (SLRSV)**				
ELISA.	**PA-VI-36**			Contact SNES
Capsicum, Pepper, Tomato				
***Pepper mild mottle virus* (PMMoV)**				
ELISA.	**PA-VI-24**	1 000	16 days	**123.00**
	PA-VI-09	3 000	16 days	**228.00**
***Tomato black ring virus* (TBRV)**				
ELISA.	**PA-VI-37-1**	3 000	16 days	**148.00**
***Alfalfa mosaic* (AMV)**				
ELISA.	**PA-VI-71**	2 000	16 days	**150.00**
***Tobacco ringspot virus* (TRSV)[40]**				
ELISA.	**PA-VI-39-1**	3 000	16 days	**148.00**
***Tomato ringspot virus* (ToRSV)[40]**				
ELISA.	**PA-VI-38-1**	3 000	16 days	**150.00**
***Tobamovirus* (ToBRFV[40], TMV, ToMV, PMMoV, ToMMV)**				
Indexing.	**PA-VI-28**	1 000	24 days	**118.00**
Indexing (ISTA 7-028).	**PA-VI-20**	3 000	24 days	**163.00**
***Tobamovirus* (ToBRFV[40], TMV, ToMV, PMMoV)**				
Supplement fee. ToBRFV confirmation by PCR of indexing positive subsamples.	**PA-VI-PCRI**	/	/	**375.00**
Pospiviroids (PSTVd,TCDVd, MPVd, PCFVd, CEVd, CLVd, TPMVd, TASVd)				
RT-PCR.	**PA-VI-55**	3 000	10 days	**210.00**
***Tomato mosaic virus* (ToMV) and/or *Tobacco mosaic virus* (TMV)**				
ELISA.	**PA-VI-18**	1 000	16 days	**121.00**
	PA-VI-19	3 000	16 days	**171.00**
***Tobacco mild green mosaic virus* (TMGMV)**				
ELISA.	**PA-VI-94-1**	1 000	16 days	**125.00**
	PA-VI-94	3 000	16 days	**136.00**
***Tomato brown rugose fruit virus* (ToBRFV)[40]**				
RT-PCR (method ANSES/LSV/MA066*, primers and probe of Menzel and Winter). **UNCOATED seeds olny.**	**PA-VI-93-7**	1 000	10 days	**135.00**
	PA-VI-93-6	3 000	10 days	**190.00**
Supplement fee. In addition analysis with ISHI primers on request.	**PA-VI-ISHI**	/	10 days	**126.00**
Supplement fee. Confirmation by PCR of ELISA positive subsamples.	**PA-VI-PCR**	/	/	**375.00**
***Arabis mosaic virus* (ArMV)**				
ELISA.	**PA-VI-33-1**	3 000	16 days	**204.00**
***Cucumber leaf spot carmovirus* (CLSV)**				
ELISA.	**PA-VI-35-1**	3 000	16 days	**203.00**
***Tomato bushy stunt virus* (TBSV)**				
ELISA.	**PA-VI-47**	3 000	16 days	**225.00**
Pea				
***Pea early browning virus* (PEBV)**				
ELISA (ISTA 7-024).	**PA-VI-31**	2 000	16 days	**160.00**
***Pea enation mosaic virus* (PEMV)**				
ELISA.	**PA-VI-57**	2 000	16 days	**230.00**
***Pea seed borne mosaic virus* (PSbMV)**				
ELISA (ISTA 7-024).	**PA-VI-11**	2 000	16 days	**160.00**
***Bean yellow mosaic virus* (BYMV)**				
ELISA.	**PA-VI-60**			Contact SNES
***Bean leaf roll virus* (BLRV)**				
ELISA.	**PA-VI-67**			Contact SNES
***Southern bean mosaic virus* (SBMV)**				
ELISA.	**PA-VI-88**			Contact SNES
Tomato				
***Pelargonium zonate spot virus* (PZSV)**				
ELISA.	**PA-VI-46**	3 000	16 days	**239.00**

* COFRAC assay

[40] Quarantine parasite

Vegetables

Virology - Uncoated seeds only

		Size	Duration	Price
Tomato				
***Pepper veinal mottle virus* (PVMV)**				
ELISA.	**PA-VI-86**			Contact SNES
***Pepino mosaic virus* (PepMV)**				
ELISA and confirmation of positives and indeterminates by RT-PCR. (Internal method derived from Anses MOA 008 – MOA 026).	**PA-VI-15**	1 000	16 days	**155.00**
	PA-VI-16	3 000	16 days	**180.00**
	PA-VI-17	5 000	16 days	**310.00**
ELISA (Method Anses MOA 026*) and confirmation of positives and indeterminates according by RT-PCR (Internal method).	**PA-VI-15CO**			Contact SNES
	PA-VI-16CO			Contact SNES
	PA-VI-17CO			Contact SNES

EVALUATION OF VARIETIES

Varietal resistance

		Size	Duration	Price
Eggplant				
Verticillium dahliae				
GEVES protocol.	**PA-R-AUB-1**	45	/	**172.00**
Cabbage				
***Fusarium oxysporum* f. sp. *conglutinans* race 1**				
Official protocol.	**PA-R-CHO**	45	/	**320.00**
Plasmodiophora brassicae				
GEVES protocol.	**PA-R-CHO-1**	45	/	**235.00**
Cucumber				
CMV *(Cucurbit mosaic virus)*				
Official protocol.	**PA-R-CON**	45	/	**137.00**
CGMMV *(Cucumber green mottle mosaic virus)*				
GEVES protocol.	**PA-R-CON-1**	45	/	**137.00**
ZYMV *(Zucchini yellow mosaic virus)*				
Official protocol.	**PA-R-CON-2**	45	/	**137.00**
WMV *(Watermelon mosaic virus)*				
Official protocol.	**PA-R-CON-3**	45	/	**137.00**
***Podosphaera xanthii* race 1**				
Official protocol.	**PA-R-CON-4**	45	/	**267.00**
Squash				
CMV *(Cucurbit mosaic virus)*				
Official protocol.	**PA-R-COU-1**	45	/	**137.00**
ZYMV *(Zucchini yellow mosaic virus)*				
Official protocol.	**PA-R-COU-2**	45	/	**137.00**
WMV *(Watermelon mosaic virus)*				
Official protocol.	**PA-R-COU-3**	45	/	**137.00**
***Podosphaera xanthii* race 1**				
Official protocol.	**PA-R-COU-4**	45	/	**260.00**
Strawberry				
Phytophthora cactorum				
Official protocol.	**PA-R-FRA-1**			Contact SNES
***Colletotrichum acutatum* race 494a or 688b**				
Official protocol.	**PA-R-FRA-C**	45	/	**259.00**
Bean				
BCMNV (*Bean common mosaic necrotic virus*)				
Official protocol.	**PA-R-HAR-1**	30	/	**118.00**
***Colletotrichum lindemuthianum* race 6 or race Kappa (anthracnose)**				
Official protocol.	**PA-R-HAR-COL**	30	/	**131.00**

Different prices outside test periods. Contact SNES for information on the periods according to the species.

* COFRAC assay

[40] Quarantine parasite

Vegetables

Varietal resistance

			Size	Duration	Price
Bean					
***Pseudomonas savastanoi* pv. *phaseolicola* race 6 (halo blight)**					
Official protocol.	**PA-R-HAR-3**		30	/	**159.00**
Xanthomonas axonopodis* pv. *phaseoli					
Official protocol.	**PA-R-HAR-4**			Contact SNES	
Lettuce					
***Bremia lactucae* races Bl: 1EU / Bl: 2EU / Bl: 3EU / Bl: 4EU / Bl: 5EU / Bl: 6EU / Bl: 7EU / Bl: 10EU / Bl: 12 to 15EU / Bl: 17EU / Bl: 18EU / Bl: 20EU / Bl: 22 to 25EU / Bl: 28EU / Bl: 32EU / Bl: 34EU / S1 / SF1 or IL4**					
Official protocol.	**PA-R-LAI-BRE**			Contact SNES	
***Bremia lactucae* official races for CTPS Bl: 16EU / Bl: 21EU / Bl: 26EU / Bl: 27EU / Bl: 29EU / Bl: 30EU / Bl: 31EU / Bl: 33EU / Bl: 35EU ou Bl: 36EU**					
Official protocol.	**PA-R-LAI-BRE1**		45	/	**59.00**
***Bremia lactucae* new race Bl: 37EU**					
Official protocol.	**PA-R-LAI-BRE2**	NEW	45	/	**59.00**
Bremia lactucae					
Late stage resistance.	**PA-R-LAI29**			Contact SNES	
Identification of the race.	**PA-R-IDBRE**			Contact SNES	
LMV (*Lettuce mosaic virus*) pathotype II (LMV-0) or pathotype III (LMV-9)					
Official protocol.	**PA-R-LAI-LMV**			Contact SNES	
LMV (*Lettuce mosaic virus*)					
Detection of markers linked to resistance genes. Gene mo1. Resistance to the Lettuce virus.	**BI-D-GENR**			Contact BioGEVES	
***Fusarium oxysporum* f. sp. *lactucae* race 1**					
Official protocol.	**PA-R-LAI30**		45	/	**165.00**
Fusarium oxysporum* f. sp. *lactucae					
Identification of the race.	**PA-R-IDFUS**			Contact SNES	
***Nasonovia ribisnigri* race 0**					
Official protocol.	**PA-R-LAI35**		45	/	**160.00**
Corn salad					
***Peronospora valerianellae* race Pv: 1 or Pv: 2**					
Official protocol.	**PA-R-MAC-PV**			Contact SNES	
Melon					
***Fusarium oxysporum* f. sp. *melonis* races Fom: 0 / Fom: 1 / Fom: 2 or Fom: 1.2**					
Official protocol.	**PA-R-MEL-FUS**		45	/	**159.00**
CMV *(Cucurbit mosaic virus)*					
Official protocol.	**PA-R-MEL-5**		45	/	**160.00**
MNSV: 0 *(Melon necrotic spot virus) race 0*					
Official protocol.	**PA-R-MEL-4**		45	/	**160.00**
MWMV (*Morrocan Watermelon mosaic virus)*					
Official protocol.	**PA-R-MEL-8**		45	/	**160.00**
ZYMV *(Zucchini yellow mosaic virus)*					
Official protocol.	**PA-R-MEL10**		45	/	**160.00**
Golovinomyces cichoracearum					
Official protocol.	**PA-R-MEL-7**			Contact SNES	
***Podosphaera xanthii* races Px: 1 / Px: 2 / Px: 3 / Px: 5 or Px: 3-5**					
Official protocol.	**PA-R-MEL-POD**		45	/	**267.00**
Podosphaera xanthii					
Identification of the race.	**PA-R-MEL15**			Contact SNES	
Fusarium oxysporum* f. sp. *melonis					
Identification of the race.	**PA-R-IDFOM**			Contact SNES	
Capsicum					
PVY (*Potato virus Y*) races PVY: 0 / PVY: 1 or PVY: 1.2					
Official protocol.	**PA-R-PIM-PVY**		45	/	**159.00**

Different prices outside test periods. Contact SNES for information on the periods according to the species.

Vegetables

Varietal resistance

		Size	Duration	Price
Capsicum				
TMV: 0 (*Tobacco mosaic virus* race 0)				
Official protocol.	**PA-R-PIM-4**	45	/	**156.00**
PMMoV (*Pepper mild mottle virus*) races PMMoV: 1.2 or PMMoV: 1.2.3				
Official protocol.	**PA-R-PIM-PMM**	45	/	**156.00**
TSWV: 0 (*Tomato spotted wilt virus*) race 0				
Official protocol.	**PA-R-PIM-7**	45	/	**156.00**
Meloidogyne incognita				
Official protocol.	**PA-R-PIM-8**		Contact SNES	
Pea				
***Ascochyta pisi* race C**				
Official protocol.	**PA-R-POI-1**	30	/	**95.00**
***Fusarium oxysporum* f. sp. *pisi* race 1**				
Official protocol.	**PA-R-POI-2**	30	/	**106.00**
BYMV (*Bean yellow mosaic virus*)				
Official protocol.	**PA-R-POI-3**	30	/	**98.00**
PEMV (*Pea enation mosaic virus*)				
Official protocol.	**PA-R-POI-4**	30	/	**98.00**
Erysiphe pisi				
Official protocol.	**PA-R-POI-5**	30	/	**157.00**
Tomato				
Verticillium dahliae				
Official protocol.	**PA-R-TOM-1**	60	/	**155.00**
***Fusarium oxysporum* f. sp. *lycopersici* races Fol: 0 / Fol: 1 or Fol: 2**				
Official protocol.	**PA-R-TOM-FUS**	60	/	**155.00**
***Passalora fulva* races Pf: 0 or Pf: E**				
Official protocol.	**PA-R-TOM-PF**	45	/	**155.00**
Fusarium oxysporum radicis* f. sp. *lycopersici				
Official protocol.	**PA-R-TOM-7**	60	/	**155.00**
***Stemphylium* spp.**				
Official protocol.	**PA-R-TOM-8**	45	/	**155.00**
ToMV: 0, 1, 2 (Tomato mosaïc virus) races ToMV: 0 / ToMV: 1 ou ToMV: 2				
Official protocol.	**PA-R-TOM-TMV**	45	/	**152.00**
TMV: 0 (*Tobacco mosaïc virus*)				
Detection of markers linked to resistance genes. Gene Tm1. Resistance to the Tomatovirus.	**BI-D-GENR**		Contact BioGEVES	
Detection of markers linked to resistance genes. Tm2 and Tm2² genes. Resistance to the Tomatovirus.	**BI-D-GENR**		Contact BioGEVES	
TSWV: 0 (*Tomato spotted wilt virus*) race 0				
Official protocol.	**PA-R-TOM10**	45	/	**152.00**
Meloidogyne incognita				
Official protocol.	**PA-R-TOM14**	45	/	**107.00**
Pseudomonas syringae* pv. *tomato				
Official protocol.	**PA-R-TOM15**	45	/	**84.00**
Pseudopyrenochaeta lycopersici				
Official protocol.	**PA-R-TOM16**	60	/	**369.00**
ToBRFV *(Tomato brown rugose fruit virus)*[40]				
GEVES protocol.	**PA-R-TOM17**	45	/	**190.00**
Passalora fulva				
Identification of the race.	**PA-ID-PF**		Contact SNES	
Tomato rootstock				
Verticillium dahliae				
Official protocol.	**PA-R-TPG-1**	90	/	**161.00**
***Fusarium oxysporum* f. sp. *lycopersici* races Fol: 0 / Fol: 1 or Fol: 2**				
Official protocol.	**PA-R-TPG-FUS**	90	/	**161.00**

Different prices outside test periods. Contact SNES for information on the periods according to the species.

* COFRAC assay

[40] Quarantine parasite

Vegetables

Varietal resistance

		Size	Duration	Price
Tomato rootstock				
***Passalora fulva* races Pf: 0 or Pf: E**				
Official protocol.	**PA-R-TPG-PF**	90	/	**161.00**
Fusarium oxysporum radicis* f. sp. *lycopersici				
Official protocol.	**PA-R-TPG-7**	90	/	**161.00**
***Stemphylium* spp.**				
Official protocol.	**PA-R-TPG-8**	90	/	**161.00**
ToMV: 0, 1, 2 (Tomato mosaïc virus) races ToMV: 0 / ToMV: 1 ou ToMV: 2				
Official protocol.	**PA-R-TPG-TMV**	90	/	**154.00**
TSWV: 0 (*Tomato spotted wilt virus*) race 0				
Official protocol.	**PA-R-TPG10**	90	/	**154.00**
Meloidogyne incognita				
Official protocol.	**PA-R-TPG14**	90	/	**106.00**
Pseudomonas syringae* pv. *tomato				
Official protocol.	**PA-R-TPG15**	90	/	**86.00**
Pseudopyrenochaeta lycopersici				
Official protocol.	**PA-R-TPG16**	90	/	**358.00**

Different prices outside test periods. Contact SNES for information on the periods according to the species.

Genotyping by molecular biology

		Size	Duration	Price
Cabbage, Strawberry, Lettuce, Pea, Radish				
Varietal identity control.	**BI-G-BM-SSR-CID-1**		Contact BioGEVES	
Varietal purity analysis.	**BI-G-BM-SSR-PUR-90**		Contact BioGEVES	

Technological quality: biochemicals tests

		Size	Duration	Price
Cabbage, Radish, Other Brassicaceae				
Glucosinolate content (HPLC).	**BI-B-HPLC-GLU**		Contact BioGEVES	
Fatty acid composition (CPG method).	**BI-B-CPG-AG**		Contact BioGEVES	
Field Bean, Pea				
Protein content (NIRS).	**BI-B-NIRS-P**		Contact BioGEVES	
Capsicum/Pepper				
Capsaicin and dihydrocapsaicin content (capsaicinoids) (HPLC).	**BI-B-HPLC-CAP**		Contact BioGEVES	
Pea				
Antitrypsic factors (assay by spectrophotometry).	**BI-B-SPEC-FAT**		Contact BioGEVES	

Field test by SEV

		Price
DUS testing - **Cucumber, Lettuce, Melon, Pepper, Tomato** Cycle 1.	**SEV-DHS-POTMAJ1**	**1810.00**
DUS testing - **Cucumber, Lettuce, Melon, Pepper, Tomato** Cycle 2.	**SEV-DHS-POTMAJ2**	**1710.00**
DUS testing - **Other vegetables species** Cycle 1.	**SEV-DHS-POTMIN1**	**1205.00**
DUS testing - **Other vegetables species** Cycle 2.	**SEV-DHS-POTMIN2**	**1140.00**

PUBLICATIONS

		Price
Method sheet		
Vigour testing – Conductivity - **Pea.**	**VIG-2-M**	**7.60**
Germination analysis technical sheet		
Ealuation of **Carrot** seedlings.	**GE-T-CAR**	**31.20**
Evaluation of **Cabbage** seedlings.	**GE-T-CHOU**	**31.20**
Evaluation of **Bean** seedlings.	**GE-T-HAR**	**31.20**
Evaluation of **Lettuce** seedlings.	**GE-T-LAI**	**31.20**

* COFRAC assay [40] Quarantine parasite

Vegetables

		Price
Germination analysis technical sheet		
Evaluation of **Onion** seedlings.	**GE-T-OIG**	**31.20**
Evaluation of **Pea** seedlings.	**GE-T-POI**	**31.20**
Evaluation of **Radish** seedlings.	**GE-T-RAD**	**31.20**
Evaluation of **Tomato** seedlings.	**GE-T-TOM**	**31.20**
Technical sheet for analysis of specific purity and counting of all other seeds		
Pisum sativum, Vicia faba.	**AP-C-8**	**31.20**
Cicer arietinum.	**AP-C-12**	**31.20**
Allium sp. (*Allium cepa*, *Allium porrum*, *Allium schoenoprasum*).	**AP-C-13**	**31.20**
Solanaceae. (*Solanum lycopersicum*, *Solanum melongena*, *Capsicum annuum*).	**AP-C-14**	**31.20**
Daucus carota, Petroselinum sp.	**AP-C-15**	**31.20**
Cucurbitaceae. (*Curcurbita* spp., *Cucumis* spp., *Citrullus lanatus*).	**AP-C-16**	**31.20**
Identification data sheet of seeds and other impurities		
Asteraceae (*Anthemis arvensis*, *Glebionis segetum*, *Chicorium* sp., *Tripleurospermum inodorum*, *Helminthotheca echioïdes*, *Lapsana communis*, *Lactuca sativa*, *Sonchus* spp., *Cirsium arvense*, *Cirsium vulgare*, *Centaurea cyanus*).	**AP-A-06**	**31.20**
Collection of seeds - Contact SNES		
Weed's identification for ***Pisum sativum*** and ***Vicia faba*** analysis.	**APCS-PIS-S**	**/**
Weed's identification for **Vegetables** analysis.	**APCS-VEG**	**/**

SEED QUALITY

Physical quality

		Size	Duration	Price
Thousand-seed weight (on purity test performed by SNES)				
Thousand-seed weight on pure seeds.	**MMS-01**	/	/	**31.50**
Purity analysis test				
Purity - **Fruit crops, Ornamentals**.	**PU-IS-18**	ISTA weight	/	**31.70**
Percentage of a specific type of other seeds. **Specify the search to be performed.**	**PU-CONS1**	/	/	**8.60**
Percentage of a specific type of inert materials. **Specify the search to be performed.**	**PU-CONS2**	/	/	**8.60**
Purity analysis test				
Supplement for purity analysis if received as raw seeds or a very dirty sample.	**PU-LB-SUP** NEW	/	/	**30.00**
Counting of all other seeds				
Full counting - **Fruit crops, Ornamentals.**	**SP-IS-17**	ISTA weight	/	**131.00**
Counting of other seeds on purity weight. Indication of the number of other seeds in the specific purity test.	**PU-SP-01**	/	/	**12.80**
Limited counting of all other seeds				
Searching of 1 to 4 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-01**	ISTA weight	/	**61.00**
Searching of 5 to 8 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-02**	ISTA weight	/	**97.00**
Searching of more than 8 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-20**			Contact SNES
Moisture content - Provide seeds in sealed foil sachets from which as much air as possible has been extracted				
Oven method.	**TE-SN-01**	ISTA weight	/	**19.70**
Identification of individual seeds				
Visual identification by species.	**ID-IS-01**	/	/	**33.00**

Physiological quality

		Size	Duration	Price
Germination test on 400 seeds				
Trees, Shrubs, Flowers.	**GE-FG-20-4**	1 250	/	**70.00**
Germination test on 200 seeds				
Trees, Shrubs, Flowers.	**GE-FG-20-2**	500	/	**56.00**
Germination tests on bulbs and bulblets				
On 400 seeds.	**GE-BULB-4**	1 250	/	**140.00**
On 200 seeds.	**GE-BULB-2**	500	/	**113.00**
Tetrazolium viability test on 400 seeds - For results within a week, reception of seeds on Tuesday at the latest.				
Oak, Dogwood, Olive, Hazelnut, Walnut.	**GE-TZ-3-4**	500	/	**203.00**
Hornbeam, Maple, Ash, Stone fruits, Beech, Rosemary, Lavender.	**GE-TZ-2-4**	500	/	**171.00**
Amelanchier, Conifers, Ligustrum, Mahonia, Apple, Pear, Sorbier, .	**GE-TZ-1-4**	500	/	**161.00**
Tetrazolium viability test on 200 seeds - For results within a week, reception of seeds on Tuesday at the latest.				
Oak, Dogwood, Olive, Hazelnut, Walnut.	**GE-TZ-3-2**	300	/	**139.00**
Hornbeam, Maple, Ash, Stone fruits, Beech, Rosemary, Lavender.	**GE-TZ-2-2**	300	/	**118.00**
Amelanchier, Conifers, Ligustrum, Mahonia, Apple, Pear, Sorbier, .	**GE-TZ-1-2**	300	/	**107.00**
Tetrazolium viability test on 100 seeds - For results within a week, reception of seeds on Tuesday at the latest.				
Oak, Dogwood, Olive, Hazelnut, Walnut.	**GE-TZ-3-1**	200	/	**107.00**
Hornbeam, Maple, Ash, Stone fruits, Beech, Rosemary, Lavender.	**GE-TZ-2-1**	200	/	**86.00**
Amelanchier, Conifers, Ligustrum, Mahonia, Apple, Pear, Sorbier, .	**GE-TZ-1-1**	200	/	**75.00**
Verification of species				
Verification of species after germination test.	**GE-ENR**	/	/	**8.70**

* COFRAC assay [40] Quarantine parasite

Nematology

		Size	Duration	Price
Bulbs*, bulblets, corms, rhizomes, tubers				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B). **UNTREATED seeds only.** Test carried out on the whole submitted sample. **If the supplied quantity is too important, a new sample will be requested.**	**PA-NE-BULB**	50 units	16 days	**122.00**

Virology - Uncoated seeds only

		Size	Duration	Price
Cyclamen				
Tomato spotted wilt virus **(TSWV)**				
ELISA.	**PA-VI-49**			Contact SNES

EVALUATION OF VARIETIES

Genotyping by molecular biology

			Size	Duration	Price
Apricot, Cherry tree, Hydrangea, Kiwi, Hazel tree, Walnut tree, Palm, Peach, Poplar, Apple Tree, Pear Tree, Plum tree, Willow					
Varietal identity control.	**BI-G-BM-SSR-CID-1**				Contact BioGEVES
Quince					
	BI-G-BM-SSR-CID-9	**NEW**			Contact BioGEVES
Palm					
Varietal identity control for export (True-to-type nature).	**BI-G-BM-SSR-CID-6**				Contact BioGEVES
Varietal identity control for production (True-to-type nature).	**BI-G-BM-SSR-CID-7**				Contact BioGEVES
Poplar					
Varietal identity control among french cultivars.	**BI-G-BM-SSR-CID-8**				Contact BioGEVES

Bud sample for genotyping

		Price
Cost of sampling for 1 INRAE site and 1 applicant/breeder.	**SEV-ECHF-FOR**	**358.00**
Cost for 1 sampled variety.	**SEV-ECHF-VAR**	**38.50**
Packaging by INRAE examiner for 1 site and for 1 to 5 varieties.	**SEV-ECHF-COND5**	**140.00**
Packaging by INRAE examiner for 1 site and for 6 to 10 varieties.	**SEV-ECHF-COND10**	**281.00**
Packaging by INRAE examiner for 1 site and for 11 to 50 varieties.	**SEV-ECHF-COND50**	**582.00**
Cost of sending for 1 site (possible to pick the samples directly on the site).	**SEV-ECHF-ENV**	**117.00**

Field test by SEV

		Price
DUS testing - **Fruit trees and rootstock** - New variety, installation year.	**SEV-DHS-FRU1**	**850.00**
DUS testing - **Fruit trees and rootstock** - New variety, following years.	**SEV-DHS-FRU2**	**1700.00**
DUS testing - **Ornementals species.**	**SEV-DHS-ORN**	**2075.00**
DUS testing - **Vine** - New variety, installation year.	**SEV-DHS-VIG1**	**850.00**
DUS testing - **Vine** - New variety, following years.	**SEV-DHS-VIG2**	**1700.00**

PUBLICATIONS

		Price
Identification data sheet of seeds and other impurities		
Lathyrus spp. *(Lathyrus sylvestris, Lathyrus latifolius, Lathyrus hirsutus, Lathyrus tuberosus, Lathyrus odoratus, Lathyrus aphaca, Lathyrus pratensis, Lathyrus sativus, Lathyrus cicera).*	**AP-A-05**	**31.20**

* COFRAC assay

[40] Quarantine parasite

SEED QUALITY

Physical quality

		Size	Duration	Price
Thousand-seed weight (on purity test performed by SNES)				
Thousand-seed weight on pure seeds.	**MMS-01**	/	/	**31.50**
Purity analysis test				
Purity - **Aromatic, Medicinal.**	**PU-IS-18**	ISTA weight	/	**31.70**
Percentage of a specific type of other seeds. **Specify the search to be performed.**	**PU-CONS1**	/	/	**8.60**
Percentage of a specific type of inert materials. **Specify the search to be performed.**	**PU-CONS2**	/	/	**8.60**
Purity analysis test				
Supplement for purity analysis if received as raw seeds or a very dirty sample.	**PU-LB-SUP** NEW	/	/	**30.00**
Counting of all other seeds				
Full counting - **Aromatic, Medicinal.**	**SP-IS-17**	ISTA weight	/	**131.00**
Counting of other seeds on purity weight. Indication of the number of other seeds in the specific purity test.	**PU-SP-01**	/	/	**12.80**
Limited counting of all other seeds				
Searching of 1 to 4 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-01**	ISTA weight	/	**61.00**
Searching of 5 to 8 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-02**	ISTA weight	/	**97.00**
Searching of more than 8 species (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-20**			Contact SNES
Moisture content - Provide seeds in sealed foil sachets from which as much air as possible has been extracted				
Oven method.	**TE-SN-01**	ISTA weight	/	**19.70**
Identification of individual seeds				
Visual identification by species.	**ID-IS-01**	/	/	**33.00**

Physiological quality

		Size	Duration	Price
Germination test on 400 seeds				
Aromatics, Medicinals.	**GE-FG-18-4**	1 250	/	**60.00**
Germination test on 200 seeds				
Aromatics, Medicinals.	**GE-FG-18-2**	500	/	**48.30**

Bacteriology - Uncoated seeds only

		Size	Duration	Price
Dill, Coriander, Parsley - Detection of 1 pathogen				
Pseudomonas viridiflava				
Agar method + PCR in case of suspect colonies.	**PA-BA-104**	30 000	26 days	**290.00**
Pseudomonas syringae* pv. *apii				
Agar method + PCR in case of suspect colonies.	**PA-BA-106**	30 000	36 days	**270.00**
Pseudomonas syringae* pv. *coriandricola				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-107**	30 000	26 days	**268.00**
Dill, Coriander, Parsley - Detection of 2 pathogens				
Pseudomonas syringae* pv. *apii* + *Pseudomonas syringae* pv. *coriandricola				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-108**	30 000	26 days	**332.00**
Pseudomonas syringae* pv. *apii* + *Pseudomonas viridiflava				
Agar method + PCR + pathogenicity test in case of suspect colonies.	**PA-BA-109**	30 000	26 days	**340.00**
Pseudomonas syringae* pv. *coriandricola* + *Pseudomonas viridiflava				
Agar method + PCR + pathogenicity test in case of suspect colonies.	**PA-BA-110**	30 000	26 days	**340.00**
Dill, Coriander, Parsley - Detection of 3 pathogens				
Pseudomonas syringae* pv. *apii* + *Pseudomonas syringae* pv. *coriandricola* + *Pseudomonas viridiflava				
Agar method + PCR + pathogenicity test in case of suspect colonies.	**PA-BA-111**	30 000	26 days	**390.00**
Dill, Coriander, Parsley				
Candidatus liberibacter solanacearum				
Detection by PCR.	**PA-BA-CAND**	20 000	10 days	**125.00**

* COFRAC assay [40] Quarantine parasite

Aromatic medicinal

Mycology - See p.8 "Seed health"

		Size	Duration	Price
Dill				
Stemphylium botryosum, Alternaria radicina (Stemphylium radicinum), *Fusarium* (*Discolour* section and other sections), *Botrytis* sp.				
Agar method.	**PA-ES-ANF**	400	19 days	**97.00**
Basil				
Fusarium oxysporum, *Fusarium* (*Discolour* section and other sections), *Botrytis* sp.				
Agar method.	**PA-ES-BAS**	400	19 days	**97.00**
***Peronospora* spp.**				
Grow-out test.	**PA-MIBASGO**	400	42 days	**119.00**
	PA-MIBASG3	3 000	42 days	**241.00**
Lavender				
Phomopsis lavandulae, Botrytis sp., Fusarium (all sections), *Phoma* sp.				
Agar method.	**PA-ES-LAV**	400	19 days	**97.00**
Parsley				
Septoria petroselini				
Direct visual observation. **UNTREATED seeds only.**	**PA-SE-PER**	1 000	15 days	**80.00**
Direct visual observation + counting. **UNTREATED seeds only.**	**PA-SE-PERD**	1 000	15 days	**93.00**
Plasmopara nivea				
Seed wash method. **UNTREATED seed only.**	**PA-MI-PER**	500	15 days	**94.00**
Alternaria petroselini (Stemphylium radicinum* var. *petroselini), Alternaria dauci, *Fusarium* (all sections), *Botrytis* sp.				
Agar method.	**PA-ES-PER**	400	19 days	**97.00**

EVALUATION OF VARIETIES

Genotyping by molecular biology

		Size	Duration	Price
Poppy				
Varietal identity control.	**BI-G-BM-SSR-CID**		Contact BioGEVES	

Technological quality: biochemicals tests

		Size	Duration	Price
Stevia				
Steviosid and rebaudiosid A content by high performance liquid chromatography (HPLC).	**BI-B-HPLC-STEV**		Contact BioGEVES	

Field test by SEV

		Price
DUS testing - **Aromatic, Medicinal plants.**	**SEV-DHS-AROMED**	**2075.00**

* COFRAC assay

[40] Quarantine parasite

Micro-cleaning

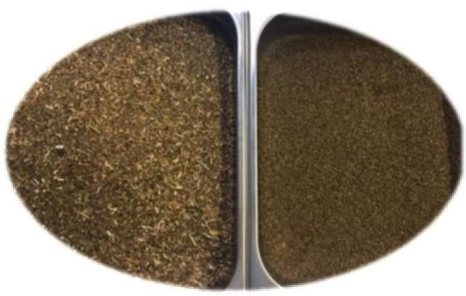
Micro-cleaning of seed lots consists in determining the percentage of waste in raw seed lots, from a harvest, using sorting machines, laboratory replicates of industrial machines.

This activity enables the establishment of an optimal sorting diagram for the seed lot. It is an essential step in defining the industrial process for quality sorting in the factory, whatever the species. Moreover, the commercial value of a lot is estimated through precise knowledge of its quality.

HOW IT IS DONE ?

Each species has his own morphological characteristics. Each morphological characteristic is associated with a sorting device, which settings are adjusted very precisely.

The complete sorting of a seed lot is carried out on a sorting line composed of several sorting machines ensuring complementarity on many criteria. In order to achieve the defined standards, the knowledge of characteristics, the expertise and the know-how of operators are essential.



Sorting on a raw batch of carrot before/after micro-cleaning

EQUIPMENTS

The SNES owns 20 different types of equipments in order to clean every types of seeds. Our training and expertise contribute to produce quality sorting, representative of the work provided in the factory. After the various sorting operations, analyses of specific purity and germination capacity can also be carried out at the SNES to ensure the quality of the seed lot.

			Price
Micro-cleaning. Standard protocol. **Beets**.	**MN-SN-01**		**56.00 €**
Micro-cleaning. Standard protocol. **Peas, Beans, Cucurbits.**	**MN-SN-02**		**51.00 €**
Micro-cleaning. Standard protocol. **Carrots.**	**MN-SN-03**		**80.00 €**
Micro-cleaning. Standard protocol. **Other vegetable crops.**	**MN-SN-04**		**72.00 €**
Micro-cleaning. Standard protocol. **Other field crop species.**	**MN-SN-05**		**64.00 €**
Micro-cleaning. Standard protocol. **Flower seeds.**	**MN-SN-06**		**Contact SNES**
Micro-cleaning. **Mixed seeds.**	**MN-SN-07**		**Contact SNES**
Micro-cleaning. **Quinoa.**	**MN-SN-08**		**95.00 €**
Micro-cleaning. Standard protocol. **Chicory**	**MN-SN-09**	NEW	**72.00 €**
Micro-cleaning. Standard protocol. **Small leguminous.**	**MN-SN-10**	NEW	**65.00 €**
Additional charge for lots not presorted or requiring additional sorting time.	**MN-SN-11**	NEW	**50.00€/h**
Supplement fee. Details of each grid with percentage results.	**MN-SUP**		**12.00€**

Requests for information: contact.mn@geves.fr

Cytology

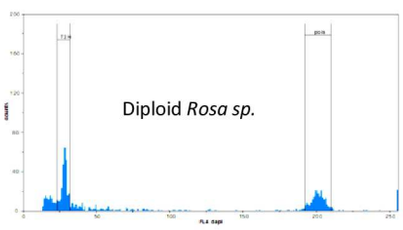
Evaluation of ploidy level from plants or seeds.

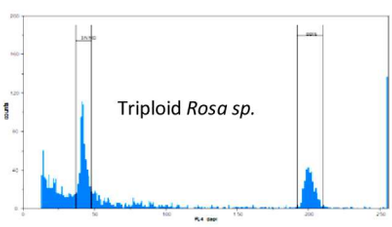
Cytology analyses carried out by the SNES aim to determine the level of ploidy by chromosome counting of root meristematic cells and/or flow cytometry.
Ploidy defines the number of chromosome copies of a cell. The level of ploidy is characteristic of the species or variety. These analyses can be carried out from seeds or from plants on many species.

FLOW CYTOMETRY

Flow cytometry is a technic based on the marking of DNA with fluorochromes. The cytometer allows a precise measurement of the amount of fluorescence emitted by the cells after marking and excitation by a light beam. The measurement of the quantity of fluorescence emitted will then be compared to a control with a known level of ploidy. This will allow to conclude on the ploidy level of the tested sample.

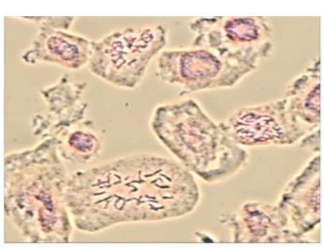
Flow cytometry is mainly used to determine the level of ploidy of a series of plants and variety. In some cases, flow cytometer is also used to identify species with a very similar morphology or mutilated or poorly formed seeds.



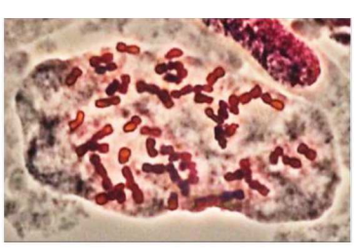


MICROSCOPY

Chromosomal counting by microscopy is a technic that also makes it possible to define the level of ploidy. This is an essential step for species which do not have a reference for cytometry. Chromosome counting is carried out on meristematic root cells whose mitotic division has been blocked at the metaphase stage. The chromosomes are then observed and counted using a phase contrast microscope.



Metaphase cells of Festulolium



Metaphase cells of Gardenia

Requests for information or analyses: contact.cyto@geves.fr

Radiography 2D and tomography

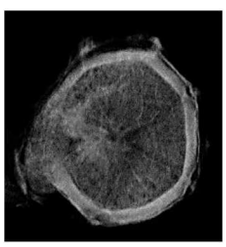
Tools for evaluating seed quality.

WHY USE 2D OU 3D RADIOGRAPHY?

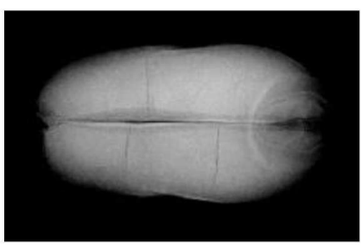
Radiography allows the internal morphology of seeds to be visualised. The objective is to understand or predict problems of physical or germinative quality. This tool also allows the phenotyping of precise characters of interest according to the request.

WHAT IS THE DIFFERENCE BETWEEN 2D RADIOGRAPHY AND TOMOGRAPHY?

2D radiography is a non-destructive method that allows rapid observation of different criterias on seeds (physical damages, empty seeds, insect damages, etc.). This technology allows a qualitative diagnosis of the state of the internal morphology. The Physical Analysis laboratory is ISTA accredited for these analyses.



Empy seed



Physical damades

Insect damages

3D radiography (tomography) is a technology whose method consists of generating a 3D image of the internal structure of an object. This tool applied to seeds allows the measurement of different characteristics andto obtain very precise quantitative data. The possible applications are diverse: characterisation of genotypes/varieties/batches, quantification of pathogen/insect damages, physical damages...

Evaluation of the quality of the coating

Quantification of insect damages

Quantification of cracks on a Corn seed

		Price
2D radiography on seeds without interpretation (per digital image).	RX-IS-03	**24.00 €**
2D image interpretation for internal morphological characterisation, the detection of insect/physical damage (%).	RX-SUP-03	**15.00 €**
Supply of one 2D image in .jpg format, for a particular determination or for measurements.	RX-SUP-RA	**1.00 €**
For any request for information or analysis in 3D tomography: - Measurements of coating characteristics; - Insect damages detection and associated volume measurements; - Measurement of internal seed constituents ; - Measurement of seed filling rate ; - Detection and measurement of mechanical cracks and other damages ; - Other measures of interest.	RX-IS-05	bea-tomographe@geves.fr
Visual or automatic image processing.	RX-SUP-05	bea-tomographe@geves.fr
Supply of a batch of 2D images in jpg format.	RX-SUP-TO	bea-tomographe@geves.fr

Biostimulation, Biocontrol, evaluation of treatment and the realization of tests under controlled conditions

GEVES, member of the Biocontrol Consortium and RMT BESTIM, provides its expertise for the characterization and evaluation of the effect of your treatments applied to seeds or seedlings.

Whether for biocontrol or biostimulant products, physical or chemical treatments, GEVES proposes to support you in the development of suitable evaluation methodologies and/or to carry out tests under controlled conditions. For *in vitro* and/or *in vivo* screening, or for the evaluation of disinfection, protection, stimulation or phytotoxicity effects, of treatment products in preventive and/or curative application.

SNES does not supply seeds or products. The sample size to be provided is 1 000 seeds per modality for selectivity and effectiveness assays. If only effectiveness trials are required, the sample size will be determined in relation to the project and the initial request.

GEVES is a multidisciplinary team of experts in seed quality and varietal resistance evaluation. It develops new evaluation methods in these areas that are recognized internationally. With this expertise, GEVES participates in research programs on biostimulation and biocontrol of seeds.

APPLICATION OF PRODUCTS ON SEEDS

Treatment of seeds is possible depending on the type of treatment and use. For more information, please contact SNES.
Depending on the quantity of seeds to be treated and the formulation of the product, 3 different tools can be used: Orbital agitator (20 g, liquid formulation); Hege bowl (500 g); Satec Concept treatment machine (up to 2 kg).

		Price
Application of a seed treatment product by SNES in the case of a treatment evaluation.	GE-APPLI	**43.40**

SELECTIVITY TESTS

To check the selectivity of a treatment, the germination test should be determined on 400 seeds.		Price
Vegetables.	GE-FG-18-4	**60.00**
Cereals.	GE-FG-01-4	**47.00**
Oilseeds.	GE-FG-17-4	**50.00**
The percentage of seedlings showing phytotoxicity symptoms can be provided specifically.		
All species.	GE-FG-PCPL	**21.40**

EVALUATION OF TREATMENTS FOR SEED AND PLANT PROTECTION

		Contact
Evaluation of phytochemical products.	PA-EVAL-CHI	geoffrey.orgeur@geves.fr
Evaluation of biocontrol products, physical treatments and disinfection process.	PA-EVAL-BIO	

Few examples of available pathosystems[4]

Wheat	*Fusarium* spp. *(Fusarium graminearum, Fusarium avenaceum, Fusarium culmorum*).	**Maize**	*Fusarium graminearum.*
	Tilletia caries.		*Fusarium verticilioides.*
	Microdochium nivale.		*Rhizoctonia solani*
			Pythium sp.
	Puccinia striiformis, Puccinia triticina.	**Beet**	*Aphanomyces cochlioides, Pythium* sp.
Rapeseed	*Plasmodiophora brassicae.*	**Sunflower**	*Plasmopara halstedii.*
	Hyaloperonospora brassicae		*Fusarium moniliforme*
	Phoma lingam.		*Verticillium dahliae.*
	Alternaria brassicicola.	**Lettuce**	*Fusarium oxysporum.*

[4]Available pathosystems presented in evaluation of varieties as well as in seed health quality are all adaptable for evaluation of treatments.

EVALUATION OF BIOSTIMULANT PRODUCTS FOR GERMINATION AND/OR SEEDLING GROWTH

Two types of trials can be performed either under favourable conditions for the plant species (i.e. those applied in selectivity trials), or under penalizing conditions (i.e. abiotic stress).

		Price / Contact
Monitoring of seed germination on 200 seeds		
Germination energy (intermediate count; in addition to germination capacity). Counting dates for energy vary according to the species.	GE-EG	**18.40**
Germination kinetics by image analysis (average rate of germination, kinetic curve).	GE-CI	sylvie.ducournau@geves.fr
Seedling development tests		
Corn root length evaluation after 7 days germination at 15°C (4 replicates of 20 seeds).	GE-RAC	**71.00**
Dry biomass of 4 replicates of 20 seedlings after germination test.	GE-BIOM	**51.00**
Growth kinetics by image analysis (Eloncam bench).	GE-ELON	sylvie.ducournau@geves.fr

Disease test supplies : inoculum and reference material

The available pests are listed on www.geves.fr. Specific preparation of isolate can also be done in the form of inoculum or artificially contaminated seeds.
Warning: For the handling of quarantine pests, laboratories must be authorised to hold (Regulation 2019/829)

Specifics preparations of pests' inoculum

		Size	Duration	Price
Specific preparation				
Suspension of *Ditylenchus dipsaci larvae* (exemple of price: 1 270€ to inoculate 9000 plants).	**PA-AD-DIT**			Contact SNES
Beet seedlings contaminated with viruliferous aphids *Myzus persicae* carrying yellowing virus BChV (*Beet chlorosis virus*).	**PA-AD-MYZ**			Contact SNES
Other isolates and inoculum				
One tray of 140 seedlings infected by a race of stripe/yellow rust (*Puccinia striiformis*). Contact jean-philippe.maigniel@geves.fr.	**PA-AD-ROU2**	/	/	**120.00**
100 mg of a vial of spores of stripe rust (*Puccinia striiformis*) or brown rust (*Puccinia recondita*) or crown rust (*Puccinia coronata*).	**PA-AD-ROU**	/	/	**54.00**
Inoculum supplied in Petri dishes.	**PA-AD-INOC**			Contact SNES
Inoculum supplied as contaminated cotyledons, plants or fresh leaves.	**PA-AD-INOP**			Contact SNES
Inoculum supplied in artificially contaminated grains that have lost germination capacity or artificially contaminated seeds that have maintained a germination capacity.	**PA-AD-INOG**			Contact SNES
Inoculum supplied in liquid suspension.	**PA-AD-INOL**			Contact SNES
Cyst of *Globodera pallida*[40] or *Globodera rostochiensis*[40].	**PA-AD-GLO**			Contact SNES
Cyst of *Heterodera schachtii.*	**PA-AD-HET**			Contact SNES

Reference material : isolates and seeds

		Price
Bioagressors isolates		
Specific preparation of reference isolate in Petri dishes (2 dishes/strain), dessicated (Bos) (1 g) or population of free living nematodes or cysts (around 20).	**PA-AD-FOU**	**150.00**
Specific preparation of 5 g of galls of *Meloidogyne incognita* (for inoculation of 15 to 20 plantlets).	**PA-AD-MEL**	**160.00**
Specific preparation of 5 g of galls of *Plasmodiophora brassicae* (for inoculation of 50 to 100 plantlets).	**PA-AD-PLAD**	**160.00**
Specific preparation		
50 to 100 seeds of germinated **Sunflower** seeds contaminated by *Plasmopara halstedii* (downy mildew).	**PA-AD-TOU2**	**137.00**
Lettuce seedlings infected with 1 race of *Bremia lactucae*, 30 cotyledons in the test period.	**PA-AD-BREM**	**160.00**
Erysiphe pisi, 2 seedlings with presence of sporulation.	**PA-AD-ERYS**	**160.00**
2 cotyledons of **Melon** infected by 1 race of *Golovinomyces cichoracearum* (powdery mildew).	**PA-AD-GOL**	**160.00**
2 cotyledons of **Melon** infected by 1 race of *Podosphaera xanthii* (powdery mildew).	**PA-AD-POD**	**160.00**
2 **Lettuce** seedlings infected with *Nasonovia ribisnigri* race Nr: 0 with presence of apterae.	**PA-AD-NAS**	**160.00**
30 leaves of **Basil** contaminated by *Peronospora belbahri.*	**PA-AD-BEL**	**160.00**
Controls/differential hosts vegetables (MATREF) for one sowing unit (1 g for *Bremia*, 200 seeds for other pathogens)		
Complete pack of differential hosts for *Bremia* of **Lettuce.**	**PA-HD-BLAI**	**326.00**
Controls/differential hosts vegetables (MATREF) for one sowing unit (1 g for Bremia, 200 seeds for other pathogens)		
Carrot.	**PA-HD-CAR**	**47.00**
Squash.	**PA-HD-COU**	**77.00**
Watermelon.	**PA-HD-PAS**	**77.00**
Bean.	**PA-HD-HAR**	**60.00**
Lettuce.	**PA-HD-LAI**	**60.00**
Corn salad.	**PA-HD-MAC**	**43.80**
Melon.	**PA-HD-MEL**	**77.00**
Capsicum.	**PA-HD-PIM**	**88.00**
Pea.	**PA-HD-POI**	**60.00**
Tomato.	**PA-HD-TOM**	**77.00**
Tomato Rootstock.	**PA-HD-PGTO**	**88.00**

INTER-LABORATORY PROFICIENCY TESTS (PT)

Inter-laboratory proficiency testing (ILPT) is used to evaluate the ability of a laboratory to perform a method.
For more information, visit our website www.geves.fr.

The organisation of comparative tests includes planning and delivery of documents to participants, preparation of samples, definition of a reference, interpretation of results and issuing of a final report.
Not included : supply of seeds cost (billed at actual price), and the shipment cost (billed on the basis of a Chronopost shipment).

Inter-laboratory proficiency tests – PT & Other comparisons

	Price	Contact
Purity – **All species** (based on 15 participants).	**177.00**	
Germination – **All species** (based on 15 participants).	**120.00**	
Moisture content – **All species** (based on 15 participants).	**77.00**	
Thousand-seed weight – **All species** (based on 15 participants).	**70.00**	Fabienne BRUN
Seed health.	**Contact SNES**	eil.semences@geves.fr
Organisation of inter-laboratory comparisons tests on request.	**Contact SNES**	
Supply of reference samples for internal laboratory control.	**Contact SNES**	
Expertise in the case of atypic results on seeds assay or deviation found (control card for recognized laboratories).	**Contact SNES**	

AUDITS

According to various standards (ISTA, recognition in the context of certification), laboratory audits can be carried out to analyse your organisation.
One-day audit includes an analysis of a pre-audit file, the conducting of the audit as well as the audit report.
Contact : Fabienne Brun (audit.semences@geves.fr).

REFERENCE MATERIALS AND DOCUMENTS SUPPLIES

Find all our publications and reference materials in the different chapters of the price list and on our website www.geves.fr.

TRAININGS - EXPERTISES

To apply for training		**Price**	**Contact**
Technichal training with SNES. Seed quality analysis, inter or in-company, at SNES or on-site.		**/**	Fabienne BRUN formation.semences@geves.fr
Technichal training with BioGEVES.		**/**	biogeves.analyses@geves.fr
Technichal training with SEV.		**/**	rachel.tessier@geves.fr
For the setting up of an expertise in an international context			
Technical expertise and visit.		**/**	secretariat.direction@geves.fr
Collective reading of results			
Collective reading of germination results, details of abnormals and debriefing of the results reading, per sample.	**GE-LECT**	**96.00 €**	service.clients@geves.fr

OUR PUBLICATIONS AND REFERENCE MATERIAL
National Seed Testing Station

OUR PUBLICATIONS AND REFERENCE MATERIAL

Technical Data

Reference Collections

Seed Control Kit

More information at **www.geves.fr**

Contact : lnr.semences@geves.fr

GEVES
Expertise & Performance

Groupe d'Étude et de contrôle
des Variétés Et des Semences

Terms and Conditions

Article 1 – General Information
The present general terms and conditions of sale apply for services which appear in the GEVES price list (Variety and Seed Study and Control Group), public interest group governed by the constitutive convention of July 17, 1989, having made the object of an approval order dated July 17, 1989 and its modified constitutive convention of April 17, 2014 whose head office is located 25 rue George Morel, CS 90024, 49071 Beaucouzé Cedex FRANCE.
The main official missions of GEVES are to conduct studies or analyses of:
- characterization and/or identification of varieties,
- agronomic quality of varieties,
- physical, physiological and sanitary control of seed.

Article 2 - Object and field of application
The analyses carried out within the framework of any order are in accordance with the present general terms of sale.

The placing of an order implies full acceptance of these general terms of sale which prevail on any other document of the customer, unless otherwise agreed between the customer and GEVES.

Geves reserves itself the right to modify the present general terms of sale.

Article 3 - Orders
3-1) Order taking
The orders are definitive only when the present general terms of sale are full accepted by the legal representative of the customer or any person duly appointed for that purpose.
The customer has to respect the terms of the supply of material described in the GEVES price list.
3-2) Modification of the order
The terms of the orders transmitted to GEVES are irrevocable for the customer, except written acceptance from GEVES. On this assumption, GEVES will not be held anymore by the deadlines agreed upon at the moment of the initial order.
3-3) Refusal of order
If a customer places an order to GEVES, without having carried out the payment of preceding orders despite reminder from GEVES, GEVES can repudiate the order, without the customer being able to claim any allowance, whatever the reason.
GEVES reserves itself the right to refuse any order.

Article 4 - Delivery of the results
4-1) Delivery time
The delivery time of the results are given only on a purely informative and indicative basis; those depending in particular on arrival of the orders, the respect of the conditions of preparation of the samples sent by the customer (weight, number, packing for example), request for more information, or complementary analyses. For each service, useful information is available on the GEVES website (www.geves.fr). In any assumption, the delivery within the deadlines can intervene only if the customer is up to date of his obligations with GEVES.
GEVES shall endeavor to meet agreed deadlines with the customer.
Delays of delivery of results cannot lead to any penalty or allowance, nor to justify the cancellation of the order.
4-2) Terms
The delivery of the results is made by paper form or by electronic way.
4-3) Complaints
The complaints are to be forwarded to the customer service of GEVES whose contacts appear in the GEVES price list. GEVES acknowledges to the customer the receipt of the complaint, deals with it and defines an appropriate treatment as soon as possible. GEVES shall inform the plaintiff of the progress of the claim and the conclusions.

Article 5 - Return
Except explicit indication of the customer validated by the customer service of GEVES whose references are indicated on the GEVES price list, no material submitted for analysis will be returned to the customer.

Article 6 - Guarantee - Liabilities
6-1) Scope
GEVES provides services. As such, GEVES is under the obligation of best effort. It could not be held responsible for non-satisfactory results from the point of view of the customer, for causes of which it does not have the control. GEVES will have, if necessary, to issue reserves on the results.
6-2) Exclusions
If the elements provided by the customer do not allow the fulfillment of the ordered service, GEVES will inform the customer. If this situation persists, the liability of GEVES could in no way be required.

In particular, GEVES could not be held responsible for sampling (except for Orange ISTA Certificates for which GEVES is responsible for sampling), the collecting, the conditioning and the transport of the samples, which is the customer's entire liability. Moreover, the samples received at GEVES shall be in good condition of conservation and shall not present identified risk for the staff of GEVES or for the environment. When a phytosanitary treatment has been applied, the customer shall inform GEVES.

The customer waives all right to take any action against GEVES for all losses or all direct or indirect damages resulting from the services, as well as in the situation where the services of GEVES would be unsuitable for the uses of the customer.

Article 7 - Tariff - Price
The rates applied to the orders are those indicated in the GEVES price list, unless particular conditions negotiated with GEVES.

Any order made on the basis of a quotation established by GEVES will be taken into account only after signature of the quotation, by the legal representative of the customer or any person duly elected for that purpose.

Prices are indicated exclusive of VAT, based on current rates and will be increased by current taxes of all types on the invoicing date.
Amounts are indicated in Euros. Payments should be made in Euros.
The transport fees of the samples provided to GEVES for analysis are always at the charge of the customer.

Article 8 - Invoicing
Any order, even if it is cancelled during the execution of the service, will give rise to an invoice. Elements of identification of the customer and ordered services are indicated on the invoices. The customer service of GEVES whose references appear in GEVES price list can be contacted for any question related to the invoice.

Article 9 - Payment
9.1) – Time for payment
The maximum payment time is 60 days from the date of emission of the invoice.
9.2) – Terms
The payments shall be made:
- by French postal or bank check or credit or postal transfer addressed to: GEVES, 25 rue George Morel, CS 90024, 49071 Beaucouzé Cedex FRANCE
- by signed and accepted draft or promissory note.
GEVES does not authorize any discount for cash payment or on a former date to those resulting from these general terms of sale.
9.3) - Delay of payment
Any sum still not paid at the due date by the customer will give rise to the payment of penalties at the rate of the European Central Bank plus 10 points and a lump sum of 40 Euros for recovery costs in compliance with Decree n° 2012-1115. These penalties are payable automatically without prior notice from GEVES on the date following the due date. Moreover, GEVES reserves itself the faculty to apply to the competent court of law to stop this non-fulfillment, under penalty per day of delay.

Article 10 - Confidentiality - Rights of ownership
GEVES guarantees the confidentiality of the results of analysis, unless the detection of a quarantine pathogen. Under such circumstances, GEVES has to communicate immediately to the qualified services of the ministry in charge of agriculture all information relating to the material in which the quarantine pathogen was identified.
This exception also applies to other situations, such as the detection of fortuitous presence of GMO, if the regulation in force imposes to GEVES to communicate information to the qualified services of the French State.

The results provided by GEVES can in no way being modified, reproduced or diffused even in a partial way, to third party, without the preliminary authorization of GEVES. Duplicates can be obtained on request at the customer service of GEVES whose references are indicated on GEVES price list.

Article 11 - Personal data
For any processing of personal data carried out in connection with this Quotation, the Parties shall comply with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, as transposed into French Law No 2018-493 of 20 June 2018.

Each Party represents and warrants to the other Party that it will strictly comply with GDPR for any processing of personal data in connection with this Quotation.

Personal data collected and processed by the Parties in the context of this contractual relation are necessary for its execution (legal basis). They are kept for a period of 10 years (retention period) from the date of the end of the Quotation.

Article 12 – Agreement of proof

In accordance with Articles 1316-1 to 1316-4 of the Civil code, documents in electronic form are admitted as evidence in the same way as paper-based documents.

The Parties expressly agree that this Quotation concluded in electronic form and signed in a dematerialized way, as well as the documents relating to it:
- Constitute the original documents ;
- Are drawn up and kept under conditions that guarantee their integrity ;
- Are perfectly valid between them. As such, the Parties undertake not to challenge the validity, enforceability or probative value of this Quotation and the documents relating to it on the basis of their conclusion or transmission by electronic means ;
- Constitute written evidence within the meaning of the aforementioned Articles 1316-1 to 1316-4 of the Civil Code. Thus, this Quotation concluded by electronic means is deemed to be evidence of the content of the Quotation, of the identity of the signatories and of their consent to the obligations arising from the Quotation.

Article 13 - Force majeure
The emergence of a case of force majeure causes the suspension of the execution of the obligations of GEVES.

Article 14 - Attribution of jurisdiction
For all disputes relating to the services carried out by GEVES, including those relatives to the interpretation of the general terms of sale, the jurisdictions of Angers shall be qualified.

Article 15 - Applicable law
The present general terms of sale, and any question which it would omit to treat, shall be exclusively governed by the French law.

By appending his signature on the Quotation, the customer:
- recognizes and accepts without reserve the present general terms of sale and that those will apply to all the further orders until communication of new general terms of sale by GEVES,
- declares that he has read and accepts them,
- waives its own purchasing conditions.