vegetable, ornamental
aromatic, fruit

GEVES PRICE LIST 2026

Variety and Seed Study and Control Group

GEVES
Expertise & Performance

www.geves.fr

GEVES
Expertise & Performance

SUMMARY

GEVES: A unique & official organisation in France

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, Agri-food and Food Sovereignty (MASA)
- The French Interprofessional Organisation for Seeds and Plants (SEMAE) - 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 15 members:

6 representatives from INRAE

2 representatives from the Ministry of Agriculture and Food

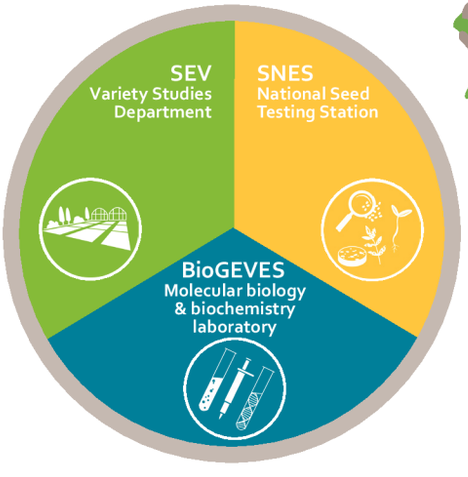
2 representatives from GNIS

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 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
- 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: 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, results that may be used for phytosanitary certificates or passports.

Activities

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

- Evaluation of varieties
- Evaluation of quality for seeds and seedlings
- Management of plant genetic resources
- Methodological research
- Monitoring of the French network of seed testing laboratories
- Training courses
- Exams
- Organisation of Proficiency Tests (PT)
- Inoculum production
- Analysis to evaluate the efficiency of treatment products
- Communication
- Consulting and expertise
- International cooperation

FOCUS

Quality, Recognition & Accréditation

GEVES benefits from a global and harmonised Quality Management System and is recognised as follows:

- Certification ISO 9001 - BioGEVES and VCUS variety testing (Value for Cultivation, Use and Sustainability) since 2009
- Accreditation of SNES and BioGEVES laboratories by COFRAC according to ISO 17025 standard:

- Beaucouzé: COFRAC N°1-1316 since 2002.
- Le Magneraud: COFRAC N°1-6176 since 2004.

List of sites and scopes available at www.cofrac.fr

- Entrusted by the CPVO for DUS variety testing since 2012.
- Accreditation of SNES laboratory by ISTA since 2001 (N°FRDL0200) for seed testing and seed lot sampling.

Place an order

Seed quality testing at SNES

ORDER YOUR ANALYSE ONLINE

Enter your order on
https://dsn.geves.fr/dsn2
Join the order summary to your sample

For faster processing of your request, please order online

ORDER YOUR ANALYSE BY POST

Complete the form corresponding to your order (OIC request or analysis order form) and join the form to your sample

SEND YOUR SAMPLES

GEVES - SNES Customer service
3 rue Henri Becquerel - CS 90024
49071 Beaucouzé Cedex
FRANCE

Biomolecular and biochemical testing at BioGEVES

ORDER YOUR ANALYSE ONLINE

biogeves.analyses@geves.fr

SEND YOUR SAMPLES

Detection unit

BioGEVES
25 rue Georges Morel - 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 SEV

REQUEST A DENOMINATION TEST

christelle.godin@geves.fr

REQUEST A FIELD TEST

DUS (Distinction Uniformity Stability)

celine.delarue@geves.fr

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25 rue Georges Morel - CS 90024
49071 Beaucouzé Cedex
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Your contacts at GEVES

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

Sector support : Training, ILC, Audits...

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- Quotes
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- Purity
- Moisture content
- Botanic, Micro-cleaning

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Céline Herbert
Diogo Tobolski

Head of Germination Laboratory
Sylvie Ducournau

- Cereals, Oilseeds, Protein crops species
- Vegetables, Ornamentals, Forages, Industrials species

Valérie Blouin
Pierre Soufflet

Head of Pathology Laboratory
Jaiana Malabarba

- Seed health
- Varietal resistance
- Seed treatment evaluation
- Inoculum production

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Denomination tests

Supply of samples to the SNES

The information listed on the SNES analysis order form is essential for registering samples.

In the case of treated seeds, the commercial name of the treatment must be declared. No treated samples will be accepted for analysis without this information.

No analysis will be performed on GMO seeds.

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.

Unless indicated differently, the sample size to be provided is expressed in number of seeds.

Please pack your seeds in anonymised bags that are suitable for the quantity of seeds sent, properly sealed and suitable for handling and storage in the laboratory.
Prefer paper packaging rather than plastic in order to limit static electricity.
Ensure that samples are adequately protected during transport. Any sample opened or pierced before analysis will not be accepted.

PHYSICAL AND PHYSIOLOGICAL QUALITY

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

Physical quality: provide the minimum weights prescribed by the ISTA Rules, chapter 2.5.4.5. If a counting analysis is requested, provide the weight listed in table 2C column 3. If more than one counting analysis is requested on the same submitted sample, provide the quantities required to perform all the countings.

If only a purity test is requested, provide the seed quantities for the submitted sample according to the following table:

Weight of working sample for purity analysis alone (Table 2C column 4)	Minimum weight of submitted sample for purity analysis (Table Column 4)
Between 500g and 1000g	Minimum working sample weight for purity analysis + 100g
Under 500g	2,5 times the minimum weight of the working sample for purity analysis.

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.

SEED HEALTH

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

Method for requesting OIC: an ISTA method will be chosen if it exists.

Virology: Certain types of treatment may affect the analysis, seeds should therefore be sent untreated, please indicate this information on your order form.

Mycology:

Medium tests

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.

Result indication

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, the genus name is followed by the species. If it is not possible to identify the species, "sp." is indicated, meaning "species not identified".

Special case of Fusarium: some species-specific *Fusarium* will remain denominated with the species name (e.g. *F. oxysporum* on cucurbits). The other species will be grouped by species complex (see table below).

***Fusarium* complexes**	***Fusarium* species**
Fusarium sambucinum complex (FSAMSC)	***F. graminearum*** Schwabe
	F. sambucinum Fuckel (*F. sulphureum*)
	F. culmorum (W.G. Smith) Saccardo
	F. crookwellense Burgess, Nelson & Toussoun
	F. langsethiae Torp & Nirenberg
	F. poae (Peck) Wollenweber
	F. sporotrichioides Sherbakoff
Fusarium tricinctum complex (FTSC)	***F. tricinctum*** (Corda) Saccardo
	F. avenaceum(Fries) Saccardo
	F. acuminatum Ellis & Everhart
Fusarium incarnatum-equiseti complex (FIESC)	***F. equiseti*** *(Corda) Saccardo*
Fusarium fujikuroi complex (FFSC)	***F. fujikuroi*** Nirenberg (*F. verticillioides, F. subglutinans, F.moniliforme*)
	F. proliferatum (Matsush.) Nirenberg ex Gerlach & Nirenberg
Fusarium oxysporum complex (FOSC)	***F. oxysporum*** Schltdl.
Fusarium solani complex (FSSC)	***F. solani*** (Mart.) Saccardo

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).

Reference materials

The SNES creates and provides technical documents, seed collections, and seed testing control kits to support company laboratories in their seed quality testing activities.

Reference documents

These documents illustrate methods for analyzing seed quality. They include photos to help you identify seeds from other plants, make it easier to analyze normal and abnormal seedlings, or identify pathogens.

Seed collections

Specific to one or more species analyzed, the seed collection contains the seeds of other plants frequently found during testing. Each species is presented with a photo, a description, and a seed sample.

Seed control kits

These kits contain seed samples that have been "contaminated" with seeds of other plants. They are a tool to help laboratory managers train and maintain the skills of their teams.

Order form and prices available at
http://www.geves.fr to be sent to lnr.semences@geves.fr

I.D.SEED®

The unique and innovative web-based multi-criteria search tool, based on keywords, to help identify and describe seeds.

Content

A user manual to optimize searches and identifications.
In 2026, I.D.SEED® contained 1469 different plant species, corresponding to 2005 entries.
Every year, around 150 new entries are added.

Description

Each seed is attached to a descriptive sheet containing the information necessary for its identification, such as scientific and common names, synonyms, family, botanical description, etc.

Its advantages

With its dynamic search function, I.D.SEED® allows you to select photos based on one or more generic data (shape, color, family, genus...), to compare an unknown seed with a panel of proposals.

Why choose I.D.SEED

Unlimited online access, created and maintained by SNES experts and adapted to the needs of seed laboratories.

Registration

Free access in just a few clicks, in French and English, by subscription to the GEVES media library.
You can then take full advantage of your I.D.SEED® account.

http://mediatheque.geves.fr

Order an analysis

To SNES

For GEVES or COFRAC certificate [1]

		Price
By paper order form		
Handling of the request per submitted sample and issuing of a definitive GEVES or COFRAC certificate, in French or English.		**10.50**
By internet on DSN website		
Handling of the request per submitted sample and issuing of a definitive GEVES or COFRAC certificate, in French or English.		**8.70**
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.		**43.70**
Supplementary certificates, specific presentation of results, priority, request for changes		
Duplicate certificate for adding manual signature and buffer, in French or English.		**3.30**
Summary table of results, or specific presentation of results.		**33.40**
Raw results on .csv file (request must be entered online on DSN website).		**0.00**
Priority processing, per sample.		**20.30**
Modification of information on a certificate (after checking the feasability).		**38.80**

[1] A GEVES certificate is issued by default, except for COFRAC accredited tests for which a COFRAC certificate will be issued.

For an international certificate [2]

		Price
ISTA eCertificate		
Handling of each submitted sample and issuing of an Orange or Blue International Certicate, in French or English, with priority being given to the related analyses. Provisional report issued upon request.	NEW	**46.80**
Paper version		
Handling of each submitted sample and issuing of an Orange or Blue International Certicate, in French or English, with priority being given to the related analyses.		**41.80**
Provisional international certificate, in French or English.		**11.00**
Duplicate international certificate, in French or English.		**11.00**
Supplementary certificates and request for changes		
Adding additional certificates (paper version only) or modification of information on an international certificate (after checking the conformity with ISTA rules).		**38.80**

[2] It is not possible to choose both formats (digital and paper) for the same batch.

To BioGEVES

Handling and results

	Price
Handling	
Handling of the sample for treated seeds.	**61.00**
Urgent handling of the sample - Contact BioGeves.	**/**
Results	
Duplicates analysis certificate except photography.	**3.00**
New edition of result certificate.	**29.80**
Specific presentation of results - Contact BioGeves.	**/**

Seed mixture species

SEED QUALITY

Physical quality

		Size	Duration	Price
Purity analysis test and determination of the composition of a seed mixture of species				
Only on naked seeds				
Less than 4 components WITH declared composition. Provide the % of species in the seed mixture.	**PU-MEL-01**	/	60 days	**545.00**
From 4 components WITH declared composition. Provide the % of species in the seed mixture.	**PU-MEL-02**			Contact SNES
WITHOUT declared composition.	**PU-MEL-03**	/	60 days	**895.00**
Preparation of pure seed for germination testing				
Seed mixture (less than 4 components) WITH declared composition[3].	**PU-PR-19**	/	/	**225.00**
From 4 components WITH declared composition[3].	**PU-PR-22**			Contact SNES
WITHOUT declared composition.	**PU-PR-19-1**	/	/	**539.00**
Preparation of pure seeds in dragees on coated seed mixture.	**PU-PR-19-2**	/	/	**38.10**

[3] Provide the % of species in the seed mixture.

Physiological quality [4]

Germination test on 400 seeds	
Species mixture by component.	**GE-FG-19-4**
Germination test on 200 seeds	
Species mixture by component.	**GE-FG-19-2**

[4] See details of price and size in the chapter of the species. All the species of the seed mixture will be analyzed whatever is the proportion, except opposite request.

[40] Quarantine parasite

SEED QUALITY

Physical quality

			Size	Duration	Price
Calibration - Provide a 250g watertight sample for naked seeds or 25 000 for coated seeds.					
ISTA method (Denker device): inferior or equal to 6 grills.	**MN-DK-CAL1**		/	/	**43.90**
ISTA method (Denker device): superior or equal to 6 grills.	**MN-DK-CAL2**		/	/	**57.00**
Thousand-seed weight					
Thousand-seed weight on pure seeds **on purity test performed by SNES.**	**MMS-01**		/	/	**34.70**
Purity analysis test					
Purity - **Artichoke, Asparagus, Aubergine, Calabash, Cardoon, Chervil, Chia, Cabbage, Cucumber, Coriander, Gherkin, Squash, Garden cress, Spinach, Okra, Beans, Lettuce, Lentils, Melon, Mustard, Turnip, Watermelon, Chilli pepper, Swiss chard, Bell pepper, Quinoa, Radish, Tomato**.	**PU-IS-POT1**	NEW	ISTA weight	/	**35.20**
Purity - **Dill, Basil, Carrot, Celery, Chicory, Bunching Onion, Chives, Courgette, Watercress, Cumin, Shallot, Fennel, Lovage, Lamb's Lettuce, Sweetcorn, Onion, Parsnip, Parsley, Leek, Pumpkin, Yellow Rocket, Salsify.**	**PU-IS-POT2**	NEW	ISTA weight	/	**51.00**
Percentage of a specific type of other seeds. **Specify the species to be mentioned.**	**PU-CONS1**		/	/	**9.60**
Percentage of a specific type of inert materials. **Specify the species to be mentioned.**	**PU-CONS2**		/	/	**9.60**
Supplement for purity analysis if received as raw seeds.	**PU-LB-SUP**		/	/	**0.00**
Counting of all other seeds					
Complete test - **Vegetables.**	**SP-IS-17**		ISTA weight	/	**147.00**
Determination of other seeds by number on purity weight. Indication of the number of other seeds in the specific purity test.	**PU-SP-01**		/	/	**20.00**
Indication of a specific kind of other seeds, by number in a complete test. **Specify the species to be mentioned.**	**SP-CONS-1**		/	/	**9.60**
Indication of a specific kind of inert materials, by number in a complete test. **Specify the materials to be mentioned.**	**SP-CONS-2**		/	/	**9.60**
Determination of other seeds by number (limited test)					
Determination of 1 to 4 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-01**		ISTA weight	/	**68.00**
Determination of 5 to 8 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-02**		ISTA weight	/	**108.00**
Determination of more than 8 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-19**		ISTA weight	/	**130.00**
Determinaton of *Orobanche* sp. by number. **Only on UNTREATED and UNCOATED seeds.** Analyse performed on a separate, sealed, submitted subsample.	**SP-ORO**		ISTA weight	/	**80.00**
Determination of *Striga* sp. by number. **Only on UNTREATED and UNCOATED seeds.** Analyse performed on a separate, sealed, submitted subsample.	**SP-STRIGA**		ISTA weight	/	**80.00**
Determinaton of *Orobanche* sp. and *Striga* sp. by number. **Only on UNTREATED and UNCOATED seeds.** Analyse performed on a separate, sealed, submitted subsample.	**SP-ORO-STR**		ISTA weight	/	**116.00**
Tests on coated seeds					
Purity on coated seeds.	**PU-IS-21**		2 500	/	**36.70**
Moisture content - Provide seeds in watertight bags from which as much air as possible has been extracted					
Oven method.	**TE-SN-01**		ISTA weight	/	**21.90**
Identification of individual seeds					
Visual identification by species.	**ID-IS-01**		/	/	**36.80**
Insects detection					
Insect detection and identification in a seed sample. Analyse performed on a separate, sealed, submitted subsample.	**DET-ID-INS**		2 500 or ISTA weight	/	**86.00**
Individual identification of regulated bruchid. Visual identification to determine the species of an individual among *Bruchus pisorum*, *Bruchus rufimanus* , and *Acanthoscelides obtectus.*	**ID-BRUCHE**	NEW	/	/	**36.00**
Detection and identification of regulated bruchids in a seed sample - **Beans.** Analyse performed on a separate, sealed, submitted subsample.	**DET-ID-BRU**		2 500 or ISTA weight	/	**86.00**

[40] Quarantine parasite

Vegetables

Physiological quality

		Size	Duration	Price
Germination test on 400 seeds				
Vegetables (except specific species below).	**GE-FG-18-4**	1 250	/	**70.00**
Garden pea.	**GE-FG-23-4**	1 250	/	**64.00**
Celery, Faba bean, Corn salad, Parsley. 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**	1 250	/	**77.00**
Bulbs and bulblets.	**GE-BULB-4**	1 250	/	**161.00**
Germination test on 200 seeds				
Vegetables (except specific species below).	**GE-FG-18-2**	500	/	**55.00**
Garden pea.	**GE-FG-23-2**	500	/	**53.00**
Celery, Faba bean, Corn salad, Parsley.	**GE-FG-22-2**	500	/	**62.00**
Bulbs and bulblets.	**GE-BULB-2**	500	/	**130.00**
Germination test on 100 seeds				
Vegetables (except Celery, Faba bean, Corn salad, Parsley, Garden pea).	**GE-FG-18-1**	500	/	**33.30**
Additional				
Additional cost for manual sowing of fragile seeds of bean.	**GE-FG-HAR**	/	/	**7.50**
Early estimation of germination analysis on 400 seeds				
Carrot.	**GE-FGPR-CA**	/	/	**39.80**
Lettuce specific cold-test				
On 400 seeds.	**GE-EGFG-4**	1 250	/	**98.00**
On 200 seeds.	**GE-EGFG-2**	500	/	**58.00**
Determination of the rate of usable Tomato plants				
On 400 seeds.	**GE-TX-PL-2**	500	/	**112.00**
On 200 seeds.	**GE-TX-PL-1**	300	/	**85.00**
Complementary determinations in addition to the germination test				
Detailed description of seedlings and seeds on 400 seeds.	**GE-FG-DET**	1 250	/	**44.20**
Detailed description of seedlings and seeds on 200 seeds.	**GE-FG-DET2**	500	/	**22.00**
Percentage of a particular type of seedling.	**GE-FG-PCPL**	/	/	**24.50**
Provision of the result of repetitions.	**GE-FG-REP**	/	/	**14.20**
Additional testing time required on 400 seeds				
Additional duration of 7 days for a germination test.	**GE-FG-7S4**	1 250	/	**17.20**
Additional duration of 14 days for a germination test.	**GE-FG-14S4**	500	/	**34.60**
Additional testing time required on 200 seeds				
Additional duration of 7 days for a germination test.	**GE-FG-7S2**	500	/	**8.70**
Additional duration of 14 days for a germination test.	**GE-FG-14S2**	500	/	**17.30**
Verification of species				
Verification of species after germination test.	**GE-ENR**	/	/	**10.00**
Verification of species on pelleted seeds, when only a purity test is resquested.	**GE-VERIF**	/	/	**25.50**
Tetrazolium viability test For results within a week, reception of seeds on Tuesday at the latest.				
Tetrazolium test on 400 seeds.	**GE-TZ-1**	500	/	**185.00**
Tetrazolium test on 200 seeds.	**GE-TZ-2**	300	/	**124.00**
Tetrazolium test on 100 seeds.	**GE-TZ-3**	200	/	**86.00**
Energy				
Germination energy (intermediate counting; germination capacity supplement). The date of counting for the energy varies according to the species.	**GE-EG**	500	/	**21.10**
Vigour tests				
Cold-test on 400 seeds.	**GE-CO**	1 250	/	**74.00**
Cold-test on 200 seeds.	**GE-CO2**	500	/	**47.00**
Accelerated ageing of 200 seeds including germination capacity.	**GE-VIEI-2**	500	/	**96.00**
Controlled deterioration of 200 seeds including germination capacity - **Tomato.**	**GE-DET-1**	500	/	**96.00**

[40] Quarantine parasite

Vegetables

Physiological quality

		Size	Duration	Price
Vigour tests				
Conductivity test on 200 seeds on ISTA species - **Bean, Pea, Chickpea, Radish. Provide seeds in watertight bags from which as much air as possible has been extracted.** As seed moisture content is a variable factor, it will be determined before testing and invoiced in accordance with TE-SN-01.	**GE-CON-GLO**	500	/	**65.00**
Additional cost for a conductivity test on a treated seed sample.	**GE-CON-SUP**	/	/	**10.20**
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**	/	/	**24.50**
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 (TSW), if not indicated on the request or incorrect for bacteriology and virology tests.	**PA-MMS**	/	/	**39.00**

Bacteriology - Uncoated seeds only

		Size	Duration	Price
Eggplant, Pepper, Tomato - 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	**233.00**
***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	**261.00**
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**	Max 10 000	34 days	**181.00**
***Pseudomonas corrugata* (Pc)**				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-92**	30 000	36 days	**314.00**
Eggplant, Pepper, Tomato - 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	**368.00**
Pst + Pc				
Agar method + identification of strains by pathogenicity test in case of suspect colonies.	**PA-BA-127**	30 000	36 days	**318.00**
Eggplant, Pepper, Tomato - Supplement fee pathogenicity test				
X. spp.				
Confirmation by pathogenicity test of PCR positive isolates.	**PA-PP-XPP**	/	10 days	**81.00**
Eggplant, Pepper - Detection of 1 pathogen				
***Clavibacter michiganensis* (Cmm)**				
Agar method. (M-GEVES/SV/MO/006).	**PA-BA-23-A**	30 000	33 days	**374.00**
Agar method. (M-GEVES/SV/MO/006). Analyse done with 1 subsample on 10 000 seeds maximum.	**PA-BA-23-B**	Max 10 000	33 days	**243.00**
Eggplant, Pepper - Detection of 2 pathogens				
***Clavibacter michiganensis* et *Xanthomonas* spp. (Cmm/X. spp.)**				
Agar method + identification of strains by PCR and/or pathogenicity test in case of suspect colonies (M-GEVES/SV/MO/006 ; ISF for *Xanthomonas*).	**PA-BA-125A**	30 000	33 days	**503.00**
Agar method + identification of strains by PCR and/or pathogenicity test in case of suspect colonies (M-GEVES/SV/MO/006 ; ISF for *Xanthomonas*). Analyse done with 1 subsample on 10 000 seeds maximum.	**PA-BA-96-B**	Max 10 000	33 days	**416.00**
Eggplant, Pepper - Detection of 3 pathogens				
Cmm + Pst + X. spp.				
Agar method + identification of strains by PCR and/or pathogenicity test in case of suspect colonies (M-GEVES/SV/MO/006 ; ISF for *Xanthomonas* ; internal method for *Pseudomonas*).	**PA-BA-96-A**	30 000	43 days	**596.00**

[40] Quarantine parasite

Bacteriology - Uncoated seeds only

		Size	Duration	Price
Eggplant, Pepper - Detection of 3 pathogens				
Cmm + Pst + X. spp.				
Agar method + identification of strains by PCR and/or pathogenicity test in case of suspect colonies (M-GEVES/SV/MO/006 ; ISF for *Xanthomonas* ; internal method for *Pseudomonas*). Analyse done with 1 subsample 10 000 seeds maximum.	**PA-BA-96-C**	Max 10 000	43 days	**549.00**
Brassicaceae (Broccoli, Cabbage, Cauliflower, Turnip, Radish, Rocket) - 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	**234.00**
Agar method + counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-019a).	**PA-BA-03**	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).	**PA-BA-105**	30 000	36 days	**278.00**
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	**293.00**
***Xanthomonas campestris* pv. *raphani (armoraciae)* (Xcr)**				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-29**	30 000	36 days	**225.00**
Disinfected seeds. Grinding + agar method + pathogenicity test in case of suspect colonies.	**PA-BA-30**	30 000	36 days	**278.00**
***Pseudomonas syringae* pv. *maculicola* (Psm)**				
Disinfected seeds. Grinding + agar method + pathogenicity test in case of suspect colonies.	**PA-BA-33**	30 000	36 days	**283.00**
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-10**	30 000	36 days	**239.00**
Brassicaceae (Broccoli, Cabbage, Cauliflower, Turnip, Radish, Rocket) - Detection of 2 pathogens				
Xcc + Xcr				
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-019a without counting of colonies for Xcc and Xcr).	**PA-BA-06**	30 000	36 days	**283.00**
Disinfected seeds. Grinding + agar method + pathogenicity test in case of suspect colonies (ISTA 7-019b without counting of colonies for Xcc and Xcr).	**PA-BA-07**	30 000	36 days	**336.00**
Xcc + Psm				
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-019a without counting of colonies for Xcc).	**PA-BA-45**	30 000	36 days	**344.00**
Xcr + Psm				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-46**	30 000	36 days	**344.00**
Brassicaceae (Broccoli, Cabbage, Cauliflower, Turnip, Radish, Rocket) - Detection of 3 pathogens				
Xcc + Xcr + Psm				
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-019a without counting of colonies for Xcc and Xcr).	**PA-BA-08**	30 000	36 days	**402.00**
Carrot				
***Candidatus* Liberibacter solanacearum**				
Detection by PCR.	**PA-BA-CAND**	20 000	10 days	**144.00**
Carrot, Celery, Fennel, Parnship				
Xanthomonas hortorum* pv. *carotae				
Agar method + PCR in case of suspect colonies (in house method ANA/PAT/QS/BA/MO/004)	**PA-BA-01**	30 000	31 days	**312.00**
Zucchini				
Pseudomonas syringae* pv. *peponis				
Agar method + identification of strains by PCR in case of suspect colonies.	**PA-BA-91**	5 000	36 days	**355.00**
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	**381.00**
Pseudomonas viridiflava				
Agar method + confirmation by PCR.	**PA-BA-93**	5 000	26 days	**381.00**
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	**216.00**
	PA-BA-1122	30 000	10 days	**356.00**
Grow-out, PCR or pathogenicity test in case of suspect symptoms.	**PA-BA-112**	10 400	37 days	**486.00**

[40] Quarantine parasite

Bacteriology - Uncoated seeds only

		Size	Duration	Price
Cucurbits (Squash, Cucumber, Melon, Watermelon) - Detection of 2 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**	5 000	36 days	**414.00**
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	**478.00**
Bean - Detection of 1 pathogen				
***Xanthomonas phaseoli* pv. *phaseoli* et *Xanthomonas citri* pv. *fuscans* (Xpp/Xcf; syn. Xap/Xff)**				
Agar method, identification of strains by PCR in case of suspect colonies (method M-GEVES/SV/MO/009 **COFRAC**).	**PA-BA-13-2**	5 000	26 days	**223.00**
	PA-BA-13-4	30 000	26 days	**459.00**
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	**250.00**
***Pseudomonas savastanoi* pv. *phaseolicola* (Psp)**				
Agar method + identification of strains by PCR in case of suspect colonies (method derived from Anses BHs/99/02).	**PA-BA-34-2**	5 000	29 days	**251.00**
Agar method with counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-023).	**PA-BA-44**	5 000	34 days	**287.00**
Bean - Detection of 2 pathogens				
Xap/Xff + Psp				
Detection and identification on symptoms (leaves or pods) by PCR.	**PA-BA-94**	/	14 days	**301.00**
SE-PCR with pathogen enrichment, 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	**329.00**
Agar method + identification of strains by PCR in case of suspect colonies (method M-GEVES/SV/MO/009 **COFRAC** for Xap/Xff - in house method derived from BHs/99/02 for Psp).	**PA-BA-15-2**	5 000	29 days	**312.00**
	PA-BA-15-4	30 000	29 days	**597.00**
***Pseudomonas syringae* pv. *syringae* (Pss) + Psp**				
Agar method + PCR/pathogenicity test in case of suspect colonies (method derived from Anses BHs/99/02).	**PA-BA-50**	5 000	31 days	**320.00**
Bean - Detection of 3 pathogens				
Xpp/Xcf (syn. Xap/Xff) + Psp + Pss				
Agar method + identification of strains by PCR in case of suspect colonies (method M-GEVES/SV/MO/009 **COFRAC** for Xap/Xff ; in house method derived from BHs/99/02 for Psp) Agar method + identification of strains by pathogenicity test (in house method derived from BHs/99/02 for Pss).	**PA-BA-17**	5 000	39 days	**379.00**
Agar method + identification of strains by PCR in case of suspect colonies (method M-GEVES/SV/MO/009 **COFRAC** for Xap/Xff ; in house method derived from BHs/99/02 for Psp) ; agar method + identification of strains by pathogenicity test (in house method derived from BHs/99/02 for Pss).	**PA-BA-18**	30 000	39 days	**711.00**
Bean - Supplement fee pathogenicity test				
Xpp/Xcf (syn. Xap/Xff)				
Supplement fee. Confirmation by pathogenicity test of PCR positive isolates (in house method M-GEVES/SV/MO/009 **COFRAC**).	**PA-PP-XAP**	/	21 days	**78.00**
Psp				
Confirmation by pathogenicity test of PCR positive.	**PA-PP-PSPH**	/	21 days	**83.00**
Lettuce - Detection of 1 pathogen				
***Xanthomonas hortorum* pv. *vitians* (Xhv)**				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-95**	30 000	39 days	**216.00**
***Pseudomonas cichorii* (Pc)**				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-97**	30 000	39 days	**233.00**
Lettuce - Detection of 2 pathogens				
Xhv + Pc				
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-98**	30 000	39 days	**399.00**

[40] Quarantine parasite

Bacteriology - Uncoated seeds only

		Size	Duration	Price
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** (ISTA 7-030).	**PA-BA-38**	10 000	39 days	**265.00**
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** (ISTA 7-030).	**PA-BA-38-2**	10 000	46 days	**265.00**
Supplement for counting of foci.	**PA-BA-41**	/	/	**28.00**
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	**209.00**
	PA-BA-70	15 000	26 days	**311.00**
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-029).	**PA-BA-21-1**	5 000	32 days	**270.00**
***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	**233.00**
Agar method + pathogenicity test in case of suspect colonies.	**PA-BA-84**	15 000	32 days	**311.00**
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	**288.00**
	PA-BA-85	15 000	36 days	**402.00**
Pea - Supplement fee pathogenicity test				
Pseudomonas syringae* pv. *pisi				
Confirmation by pathogenicity test PCR positive isolates.	**PA-PP-PSP**	/	9 days	**83.00**
Tomato - Detection of 1 pathogen				
***Clavibacter michiganensis* (Cmm)**				
SE-PCR (method ISF **COFRAC**). **Non disfinfected seeds only**. Confirmation of viability and pathogenicity by dilution-plating method on a new sample is possible.	**PA-BA-23-6**	10 000	12 days	**195.00**
	PA-BA-23-7	30 000	12 days	**276.00**
Agar method + identification of strains by PCR in case of suspect colonies + pathogenicity test in case of PCR positive colonies (method M-GEVES/SV/MO/006 **COFRAC**).	**PA-BA-23-1**	30 000	33 days	**374.00**
Agar method + identification of strains by PCR in case of suspect colonies + pathogenicity test in case of PCR positive colonies (method M-GEVES/SV/MO/006 **COFRAC**). Analysis perfomed on 1 subsample of 10 000 seeds maximum	**PA-BA-23-2**	Max 10 000	33 days	**243.00**
Supplement fee. Confirmation by pathogenicity test of PCR positive isolates (method M-GEVES/SV/MO/006 **COFRAC**).	**PA-PP-CMM**	/	10 days	**65.00**
Tomato - Detection of 2 pathogens				
***Clavibacter michiganensis* and *Xanthomonas* spp. (Cmm/X. spp.)**				
Agar method + identification of strains by PCR in case of suspect colonies and pathogenicity test (method M-GEVES/SV/MO/006 **COFRAC** for Cmm ; method ISF for *Xanthomonas*).	**PA-BA-125**	30 000	33 days	**503.00**
Agar method + identification of strains by PCR in case of suspect colonies and pathogenicity test (method M-GEVES/SV/MO/006 **COFRAC** for Cmm ; method ISF for *Xanthomonas*). Analyse done with 1 subsample on 10 000 seeds maximum.	**PA-BA-96-1**	Max 10 000	33 days	**416.00**
Tomato - Detection of 3 pathogens				
Cmm + Pst + X. spp.				
Agar method + identification of strains by PCR in case of suspect colonies and pathogenicity test (method M-GEVES/SV/MO/006 **COFRAC** for Cmm ; method ISF for *Xanthomonas* ; in house method for *Pseudomonas*).	**PA-BA-96**	30 000	43 days	**596.00**
	PA-BA-96-2	10 000	43 days	**549.00**
All species				
Supplement fee for counting of colonies				
1 pathogen in 5 000 seeds.	**PA-BA-19**	5 000	/	**27.00**
1 pathogen in 30 000 seeds.	**PA-BA-20**	30 000	/	**66.00**
More than 1 pathogen in 5 000 seeds.	**PA-BA-81**	5 000	/	**42.00**
More than 1 pathogen in 30 000 seeds.	**PA-BA-82**	30 000	/	**122.00**

[40] Quarantine parasite

Vegetables

Mycology - See p.7 "Seed health"

		Size	Duration	Price
Asparagus				
Fusarium oxysporum, *Fusarium* sp., *Botrytis* sp. Agar method without superficial disinfection.	**PA-ES-ASP**	400	19 days	**113.00**
Eggplant				
Alternaria solani, Fusarium oxysporum, Fusarium solani , *Fusarium* sp., *Colletotrichum* sp., *Phomopsis* sp., *Botrytis* sp., *Verticillium* sp., *Rhizoctonia* sp., *Didymella* sp., *Stemphylium* sp. Agar method without superficial disinfection.	**PA-ES-AUB**	400	19 days	**113.00**
Alliaceae (Chive, Onion, Leek)				
Alternaria porri, Botrytis allii **et/ou** ***Botrytis aclada, Stromatinia cepivora*** **(syn.** ***Sclerotium cepivorum), Fusarium oxysporum, Setophoma terrestris*** **(syn.** ***Pyrenochaeta terrestris),*** *Fusarium* sp., *Fusarium fujikuroi* complex, *Botrytis cinerea, Botryotinia squamosa* (syn. *Botrytis squamosa)* Agar method.	**PA-ES-OIG**	400	19 days	**113.00**
Brassicaceae (Cabbage, Rape, Turnip, Radish, Rocket)				
Leptosphaeria maculans **and/or** ***Plenodomus biglobosus, 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	**113.00**
Leptosphaeria maculans **and/or** ***Plenodomus biglobosus*** Agar method (ISTA 7-004).	**PA-PH-CHO**	1 000	25 days	**278.00**
Albugo candida Seed wash method. **UNTREATED seeds only.**	**PA-ALB-CHO**	500	15 days	**109.00**
Hyaloperonospora parasitica **(downy mildew)** Seed wash method. **UNTREATED seeds only.**	**PA-MI-CHO**	500	15 days	**109.00**
Carrot				
Neocercospora carotae (**syn.** ***Cercospora carotae)*** Seed wash method. **UNTREATED seeds only.**	**PA-CE-CAR**	500	15 days	**109.00**
Alternaria dauci, Alternaria radicina (**syn.** ***Stemphylium radicinum)*** **and/or** ***Alternaria carotiincultae*** Agar Method (ISTA 7-001b, 7-002b).	**PA-AL-CAR**	400	24 days	**113.00**
Alternaria dauci, Alternaria radicina (**syn.** ***Stemphylium radicinum)*** **and/or** ***Alternaria carotiincultae****, Fusarium* sp., *Phoma* sp., *Botrytis* sp. Agar method.	**PA-ES-CAR**	400	19 days	**113.00**
Septoria carotae Direct visual observation. **UNTREATED seeds only.**	**PA-SE-CAR**	1 000	15 days	**93.00**
Mycocentrospora acerina Seed wash method. **UNTREATED seeds only.**	**PA-MY-CAR**	500	15 days	**109.00**
Celery				
Alternaria dauci, Alternaria radicina (**syn.** ***Stemphylium radicinum)*** **and/or** ***Alternaria carotiincultae,*** *Fusarium* sp., *Phoma* sp., *Botrytis* sp. Agar method without superficial disinfection.	**PA-ES-CEL**	400	19 days	**113.00**
Septoria apiicola Direct visual observation. **UNTREATED seeds only.**	**PA-SE-CEL**	1 000	15 days	**93.00**
Cercospora apii Seed wash method. **UNTREATED seeds only.**	**PA-CE-CEL**	500	15 days	**109.00**
Squash, Melon				
Pseudoperonospora cubensis Seed wash method. **UNTREATED seeds only.**	**PA-MI-COUR**	500	15 days	**109.00**
Cucurbits (Cucumber, Melon, Pumpkin, Squash, Watermelon)				
Stagonosporopsis cucurbitacearum (**syn.** ***Didymella bryoniae), Fusarium oxysporum, Fusarium solani, Alternaria cucumerina, Gloeosporium orbiculare (*****syn.** ***Colletotrichum orbiculare),*** *Fusarium* sp., *Phomopsis* sp., *Botrytis* sp., *Cladosporium* sp. **Cucumber** - Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-COND**	400	19 days	**118.00**
Cucumber - Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-CON**	400	19 days	**113.00**
Pumpkin, Squash - Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-COUD**	400	19 days	**118.00**
Pumpkin, Squash - Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-COU**	400	19 days	**113.00**
Melon - Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-MELD**	400	19 days	**118.00**
Melon - Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-MEL**	400	19 days	**113.00**

[40] Quarantine parasite

Vegetables

Mycology - See p.7 "Seed health"

		Size	Duration	Price
Cucurbits (Cucumber, Melon, Pumpkin, Squash, Watermelon)				
***Stagonosporopsis cucurbitacearum* (syn. *Didymella bryoniae*), *Fusarium oxysporum*, *Fusarium solani*, *Alternaria cucumerina*, *Gloeosporium orbiculare* (syn. *Colletotrichum orbiculare*),** *Fusarium* sp., *Phomopsis* sp., *Botrytis* sp., *Cladosporium* sp.				
Watermelon - Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-PASD**	400	19 days	**118.00**
Watermelon - Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-PAS**	400	19 days	**113.00**
***Fusarium* spp.**				
Confirmation by pathogenicity test of suspect *Fusarium* strains isolated.	**PA-COU-PP**	/	45 days	**187.00**
Cress				
***Alternaria brassicae*, *Stemphylium botryosum*, *Botrytis* sp., *Phoma* sp., *Fusarium* sp.**				
Agar method without superficial disinfection.	**PA-ES-CRE**	400	19 days	**113.00**
***Hyaloperonospora brassicae* (syn. *Peronospora brassicae*)**				
Seed wash method. **UNTREATED seeds only. Watercress *(Nasturtium)* seeds only.**	**PA-MI-CRE**	500	15 days	**109.00**
Spinach				
***Peronospora farinosa* (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-EPI**	500	15 days	**109.00**
***Botrytis cinerea*, *Colletotrichum dematium*, *Fusarium oxysporum*,** *Fusarium* sp.				
Agar method without superficial disinfection.	**PA-ES-EPI**	400	19 days	**113.00**
Fennel				
***Passalora punctum* (syn. *Cercosporidium punctum*)**				
Seed wash method. **UNTREATED seeds only.**	**PA-CE-FEN**	500	15 days	**109.00**
***Botrytis cinerea*,** *Fusarium* sp., *Alternaria radicina*, *Stemphylium botryosum*, *Phoma* sp.				
Agar method without superficial disinfection.	**PA-ES-FEN**	400	19 days	**113.00**
Bean				
***Colletotrichum lindemuthianum*, *Botrytis cinerea*, *Macrophomina phaseolina*,** *Stemphylium botryosum*, *Boeremia exigua (Phoma exigua)*, *Colletotrichum truncatum*, *Phyllosticta phaseolina*, *Fusarium* sp., *Rhizoctonia solani*, *Diaporthe phaseolorum*, *Sclerotinia sclerotiorum*				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-HARD**	400	19 days	**118.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-HARM**	400	19 days	**113.00**
Colletotrichum lindemuthianum				
Blotter roller method (ISTA 7-006).	**PA-ESI-HAR**	400	19 days	**123.00**
Lettuce				
Septoria lactucae				
Direct visual observation. **UNTREATED seeds only.**	**PA-SE-LAI**	1 000	15 days	**93.00**
***Alternaria dauci*, *Microdochium panattonianum* (syn. *Marssonina panattoniana*),** *Stemphylium* sp., *Botrytis* sp., *Verticillium* sp., *Fusarium* sp.				
Agar method without superficial disinfection.	**PA-ES-LAI**	400	19 days	**113.00**
Corn salad				
***Peronospora valerianellae* (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-MAC**	500	15 days	**98.00**
Grow-out method (viability testing).	**PA-OUT-MAC**	400	42 days	**124.00**
***Stagonosporopsis valerianellae* (syn. *Phoma valerianellae*), *Botrytis cinerea*,** *Fusarium* sp.				
Agar method without superficial disinfection.	**PA-ES-MAC**	400	28 days	**113.00**
Onion				
***Peronospora destructor* (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-OIG**	500	15 days	**109.00**
***Urocystis magica* (syn. *Urocystis cepulae*) (smut)**				
Seed wash method. **UNTREATED seeds only.**	**PA-CH-OIG**	500	15 days	**109.00**
Onion bulblets				
***Alternaria porri*, *Botrytis allii* and/or *Botrytis aclada*, *Stromatinia cepivora* (syn. *Sclerotium cepivorum*), *Fusarium oxysporum*, *Setophoma terrestris* (syn. *Pyrenochaeta terrestris*),** *Fusarium* sp., *Botrytis cinerea*, *Botryotinia squamosa* (syn. *Botrytis squamosa*)				
Agar method with superficial disinfection. **UNTREATED bublets only.**	**PA-ESOIGBD**	200	19 days	**127.00**
Agar method without superficial disinfection. **Treated bublets only.**	**PA-ES-OIGB**	200	19 days	**118.00**

[40] Quarantine parasite

Vegetables

Mycology - See p.7 "Seed health"

		Size	Duration	Price
Capsicum				
Phytophthora capsici				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-PIM**	500	15 days	**109.00**
Capsicum, Pepper				
Colletotrichum truncatum* (syn. *Colletotrichum capsici*), *Fusarium oxysporum, *Fusarium* sp., *Colletotrichum coccodes, Sclerotinia sclerotiorum, Botrytis* sp., *Verticillium* sp.				
Agar method without superficial disinfection.	**PA-ES-POIV**	400	19 days	**113.00**
Leek				
***Alternaria porri, Botrytis allii* et/ou *Botrytis aclada, Sclerotinia minor, Fusarium fujikuroi* (syn. *Fusarium moniliforme*), *Fusarium oxysporum*,** *Fusarium* sp., *Botrytis* sp., *Stemphylium* sp.				
Agar method without superficial disinfection.	**PA-ES-POR**	400	19 days	**113.00**
Pea				
***Didymella pisi* (syn. *Ascochyta pisi*), *Didymella pinodes* (syn. *Mycosphaerella pinodes*), *Didymella pinodella* (syn. *Phoma pinodella*),** *Stemphylium botryosum, Fusarium* sp., *Botrytis* sp., *Sclerotinia* sp., *Phoma* sp.				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-POID**	400	19 days	**118.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-POI**	400	19 days	**113.00**
***Peronospora viciae* (syn. *Peronospora pisi*) (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-POI**	500	15 days	**109.00**
***Didymella pisi* (syn. *Ascochyta pisi*)**				
Agar method (ISTA 7-005).	**PA-ANT-POI**	400	19 days	**118.00**
Chickpea				
Phoma rabiei* (syn. *Ascochyta rabiei*), *Botrytis cinerea*, *Fusarium oxysporum, *Fusarium solani, Fusarium* sp.				
Agar method with superficial disinfection. **UNTREATED seeds only.**	**PA-ES-POCD**	400	19 days	**118.00**
Agar method without superficial disinfection. **Treated seeds only.**	**PA-ES-POC**	400	19 days	**113.00**
Radish				
***Hyaloperonospora parasitica* (syn. *Peronospora parasitica*) (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-RAD**	500	15 days	**109.00**
Rocket				
***Hyaloperonospora parasitica* (syn. *Peronospora parasitica*) (downy mildew)**				
Seed wash method. **UNTREATED seeds only.**	**PA-MI-ROQL**	500	15 days	**109.00**
Tomato				
Alternaria solani, Fusarium oxysporum, *Fusarium solani, Fusarium sp., Colletotrichum coccodes, Botrytis cinerea, Didymella* sp., *Verticillium* sp., *Stemphylium* sp., *Rhizoctonia* sp., *Sclerotinia* sp.				
Agar method.	**PA-ES-TOM**	400	19 days	**113.00**
All species				
***Fusarium* spp.**				
Identification of *Fusarium* species in addition to detection test.	**PA-ID-FUS**	/	19 days	**282.00**
***Helminthosporium* spp. (*Pyrenophora* spp.)**				
Identification of species of *Helminthosporium* in addition to detection test.	**PA-ID-HEL**	/	/	**137.00**
Supplement for spore counting, washing methods In case of a positive wash result, the laboratory may add a counting service if necessary and if the customer has mentioned this in their initial request				
Counting by classes (0;1-10;11-100;>100).	**PA-MY-DCLA**	/	/	**69.00**
Counting by unit.	**PA-MY-DEN**	/	/	**112.00**

Nematology

		Size	Duration	Price
Carrot				
Ditylenchus dipsaci				
Filtration and morphological identification (method Anses MOA013 parts A **COFRAC** and B **COFRAC**). **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	**81.00**

[40] Quarantine parasite

Vegetables

Nematology

			Size	Duration	Price
Strawberry					
***Aphelenchoides* spp.**					
Detection on plants. Filtration and morphological identification (Anses method MOA013 parts A and B).	**PA-NE-FRA**	NEW	/	16 days	**126.00**
Onion					
Ditylenchus dipsaci					
Filtration and morphological identification (method Anses MOA013 parts A **COFRAC** and B **COFRAC**). **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	**81.00**
Leek					
Ditylenchus dipsaci					
Filtration and morphological identification (method Anses MOA013 parts A **COFRAC** and B **COFRAC**). **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	**81.00**
Pea					
Ditylenchus dipsaci					
Filtration and morphological identification (method Anses MOA013 parts A **COFRAC** and B **COFRAC**). **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**		200 g	16 days	**81.00**
Bulbs, bulblets, corms, rhizomes, tubers					
Ditylenchus dipsaci					
Filtration and morphological identification (method Anses MOA013 parts A **COFRAC** and B **COFRAC**). **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	**141.00**
All species					
***Heterodera* group *schachtii*, *Heterodera* group *goettingiana*, *Heterodera* group *avenae*.**					
Detection and identification on soil samples.	**PA-NE-SOL1**		300 g	30 days	**216.00**

Virology - Uncoated seeds only

			Size	Duration	Price
Eggplant					
Tomato brown rugose fruit virus					
ToBRFV; syn. *Tobamovirus fructirugosum*					
RT-PCR (method ANSES/LSV/MA066, primers and probe of Menzel and Winter).	**PA-VI-93-9**		1 000	10 days	**149.00**
	PA-VI-93-8		3 000	10 days	**200.00**
	PA-VI-97-1		4 800	10 days	**524.00**
ToBRFV + ToMMV					
RT-PCR (method ANSES/LSV/MA066, primers and probe of Menzel and Winter for ToBRFV).	**PA-VI-99-3**		1 000	10 days	**195.00**
	PA-VI-99-2		3 000	10 days	**253.00**
Eggplant, Capsicum, Pepper, Tomato					
Tomato mottle mosaic virus					
ToMMV; syn. *Tobamovirus maculatessellati*					
RT-PCR.	**PA-VI-98-1**		1 000	10 days	**156.00**
	PA-VI-98		3 000	10 days	**219.00**
Pepper mild mottle virus					
PMMoV; syn. *Tobamovirus capsici*					
ELISA.	**PA-VI-24**		1 000	16 days	**141.00**
	PA-VI-09		3 000	16 days	**249.00**
Tomato black ring virus					
TBRV; syn. *Nepovirus nigranuli*					
ELISA.	**PA-VI-37-1**		3 000	16 days	**170.00**

[40] Quarantine parasite

Virology - Uncoated seeds only

		Size	Duration	Price
Eggplant, Capsicum, Pepper, Tomato				
Alfalfa mosaic virus **AMV; syn. *Alfamovirus* AMV**				
ELISA.	**PA-VI-71**	3 000	16 days	**172.00**
Tobacco ringspot virus **TRSV; syn. *Nepovirus nicotianae***				
ELISA.	**PA-VI-39-1**	3 000	16 days	**170.00**
Tomato ringspot virus **ToRSV; syn. *Nepovirus lycopersici***				
ELISA.	**PA-VI-38-1**	3 000	16 days	**172.00**
Tobamovirus **ToBRFV, TMV, ToMV, PMMoV, ToMMV**				
Indexing.	**PA-VI-28**	1 000	24 days	**136.00**
Indexing (ISTA 7-028).	**PA-VI-20**	3 000	24 days	**187.00**
Pospiviroïdes **PSTVd, TCDVd, MPVd, PCFVd, CEVd, CLVd, TPMVd, TASVd**				
RT-PCR.	**PA-VI-55**	3 000	10 days	**241.00**
	PA-VI-83	4 800	21 days	**807.00**
	PA-VI-72	20 000	10 days	**3233.00**
Tomato mosaic virus **ToMV; syn. *Tobamovirus tomatotessellati*,** **Tobacco mosaic virus** **MV; syn. *Tobamovirus tabaci***				
ELISA.	**PA-VI-18**	1 000	16 days	**139.00**
Tomato mosaic virus **ToMV; syn. *Tobamovirus tomatotessellati*,** **Tobacco** **mosaic virus** **MV; syn. *Tobamovirus tabaci***				
	PA-VI-19	3 000	16 days	**196.00**
Tobacco mild green mosaic virus **TMGMV; syn. *Tobamovirus mititessellati***				
ELISA.	**PA-VI-94-1**	1 000	16 days	**144.00**
	PA-VI-94	3 000	16 days	**157.00**
Arabis mosaic virus **ArMV; syn. *Nepovirus arabis***				
ELISA.	**PA-VI-33-1**	3 000	16 days	**234.00**
Tomato bushy stunt virus **TBSV; syn. *Tombusvirus lycopersici***				
ELISA.	**PA-VI-47**	3 000	16 days	**246.00**
Pelargonium zonate spot viru **PZSV; syn. *Anulavirus PZSV***				
ELISA.	**PA-VI-46**	3 000	16 days	**262.00**
Pepper veinal mottle virus **PVMV; syn. *Potyvirus capsivenae***				
ELISA.	**PA-VI-86**	3 000	16 days	**249.00**
Pepino mosaic virus **PepMV; syn. *Potexvirus pepini***				
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	**179.00**
	PA-VI-16	3 000	16 days	**208.00**
	PA-VI-17	5 000	16 days	**355.00**
Carrot				
Alfalfa mosaic virus **AMV; syn. *Alfamovirus AMV***				
ELISA.	**PA-VI-71**	3 000	16 days	**172.00**

[40] Quarantine parasite

Vegetables

Virology - Uncoated seeds only

		Size	Duration	Price
Carrot				
Arabis mosaic virus **ArMV; syn. *Nepovirus arabis*** ELISA.	**PA-VI-33-1**	3 000	16 days	**234.00**
Tomato ringspot virus **ToRSV; syn. *Nepovirus lycopersici*** ELISA.	**PA-VI-38-1**	3 000	16 days	**172.00**
Celery				
Strawberry latent ringspot virus **SLRSV; syn. *Stralarivirus fragariae*** ELISA.	**PA-VI-36**	3 000	16 days	**266.00**
Cucurbits - Detection of 1 pathogen				
Cucumber mosaic virus **CMV; syn. *Cucumovirus CMV*** ELISA.	**PA-VI-56**	2 000	16 days	**259.00**
Arabis mosaic virus **ArMV; syn. *Nepovirus arabis*** ELISA.	**PA-VI-33**	2 000	16 days	**263.00**
Cucumber leaf spot carmovirus **CLSV; syn. *Aureusvirus cucumis*** ELISA.	**PA-VI-35**	2 000	16 days	**263.00**
Tobacco ringspot virus **TRSV; syn. *Nepovirus nicotianae*** ELISA.	**PA-VI-39**	2 000	16 days	**274.00**
Tomato black ring virus **TBRV; syn. *Nepovirus nigranuli*** ELISA.	**PA-VI-37**	2 000	16 days	**218.00**
Tomato ringspot virus **ToRSV; syn. *Nepovirus lycopersici*** ELISA.	**PA-VI-38**	2 000	16 days	**263.00**
Zucchini yellow mosaic virus **ZYMV; syn. *Potyvirus cucurbitaflavitesselati*** ELISA.	**PA-VI-40**	2 000	16 days	**271.00**
Squash leaf curl virus **SLCV; syn. *Begomovirus cucurbitapeponis*** ELISA.	**PA-VI-77**	2 000	16 days	**266.00**
Cucumber green mottle mosaic virus **CGMMV; syn. *Tobamovirus viridimaculae*** ELISA (ISTA 7-026).	**PA-VI-01-1**	2 000	16 days	**213.00**
	PA-VI-51	9 400	16 days	**670.00**
Kyuri green mottle mosaic virus **KGMMV; syn. *Tobamovirus kyuri*** ELISA.	**PA-VI-63**	2 000	16 days	**266.00**
	PA-VI-63-1	9 400	16 days	**710.00**
Melon necrotic spot virus **MNSV; syn. *Gammacarmovirus melonis*** ELISA (ISTA 7-026).	**PA-VI-01-2**	2 000	16 days	**255.00**
ELISA.	**PA-VI-01-7**	9 400	16 days	**767.00**
Squash mosaic virus **SqMV; syn. *Comovirus cucurbitae*** ELISA (ISTA 7-026).	**PA-VI-01**	2 000	16 days	**235.00**
Cucurbits - Detection of 2 pathogens				
SqMV + CGMMV ELISA (ISTA 7-026).	**PA-VI-01-3**	2 000	16 days	**318.00**
SqMV + MNSV ELISA (ISTA 7-026).	**PA-VI-01-4**	2 000	16 days	**342.00**

[40] Quarantine parasite

Vegetables

Virology - Uncoated seeds only

			Size	Duration	Price
Cucurbits - Detection of 2 pathogens					
MNSV + CGMMV					
ELISA (ISTA 7-026).	**PA-VI-01-5**		2 000	16 days	**320.00**
CGMMV + KGMMV					
ELISA.	**PA-VI-64**		2 000	16 days	**333.00**
	PA-VI-87		9 400	16 days	**1386.00**
Cucurbits - Detection of 3 pathogens					
SqMV + CGMMV + MNSV					
ELISA (ISTA 7-026).	**PA-VI-01-6**		2 000	16 days	**492.00**
KGMMV+ CGMMV+ MNSV					
ELISA.	**PA-VI-95**		9 400	16 days	**1410.00**
Cucurbits - Detection of 4 pathogens					
SqMV + CGMMV + KGMMV + MNSV					
ELISA.	**PA-VI-65**		2 000	16 days	**630.00**
Spinach					
Beet mosaic virus **BtMV; syn. *Potyvirus betaceum***					
ELISA.	**PA-VI-73**		3 000	16 days	**266.00**
Bean - Detection of 1 pathogen					
Bean common mosaic virus **BCMV; syn. *Potyvirus phaseovulgaris***					
ELISA.	**PA-VI-02-1**	NEW	1 000	16 days	**225.00**
Bean common mosaic necrotic virus **BCMNV; syn. *Potyvirus phaseoli***					
ELISA on plantlets.	**PA-VI-03**		1 000	37 days	**328.00**
Pea early browning virus **PEBV; syn. *Tobravirus pisi***					
ELISA.	**PA-VI-53**		2 000	16 days	**251.00**
Tomato black ring virus **TBRV; syn. *Nepovirus nigranuli***					
ELISA.	**PA-VI-37**		2 000	16 days	**218.00**
Bean - Detection of 2 pathogens					
BCMV + BCMNV					
ELISA on plantlets.	**PA-VI-04**		1 000	37 days	**493.00**
Lettuce					
Arabis mosaic virus **ArMV; syn. *Nepovirus arabis***					
ELISA.	**PA-VI-33-1**		3 000	16 days	**234.00**
Lettuce mosaic virus **LMV; syn. *Potyvirus lactucae***					
ELISA.	**PA-VI-05**		10 000	16 days	**194.00**
	PA-VI-06		30 000	16 days	**387.00**
Tomato black ring virus **TBRV; syn. *Nepovirus nigranuli***					
ELISA.	**PA-VI-37-1**		3 000	16 days	**170.00**
Tobacco ringspot virus **TRSV; syn. *Nepovirus nicotianae***					
ELISA.	**PA-VI-39-1**		3 000	16 days	**170.00**
Tomato ringspot virus **ToRSV; syn. *Nepovirus lycopersici***					
ELISA.	**PA-VI-38-1**		3 000	16 days	**172.00**
Strawberry latent ringspot virus **SLRSV; syn. *Stralarivirus fragariae***					
ELISA.	**PA-VI-36**		3 000	16 days	**266.00**

[40] Quarantine parasite

Vegetables

Virology - Uncoated seeds only

			Size	Duration	Price
Capsicum, Pepper, Tomato					
Tomato brown rugose fruit virus **ToBRFV; syn. *Tobamovirus fructirugosum*** Real time RT-PCR on seeds (method ANSES/LSV/MA066 **COFRAC**, primers and probe of Menzel and Winter).	**PA-VI-93-7**		1 000	10 days	**149.00**
	PA-VI-93-6		3 000	10 days	**200.00**
	PA-VI-97	NEW	4 800	10 days	**524.00**
ToBRFV + ToMMV RT-PCR en temps réel sur semences (méthode ANSES/LSV/MA066 **COFRAC**, amorces et sonde de Menzel et Winter pour ToBRFV ; méthode interne pour ToMMV).	**PA-VI-99-1**		1 000	10 days	**167.00**
	PA-VI-99		3 000	10 days	**253.00**
Pea					
Tomato black ring virus **TBRV; syn. *Nepovirus nigranuli*** ELISA.	**PA-VI-37**		2 000	16 days	**233.00**
Pea early browning virus **PEBV; syn. *Tobravirus pisi*** ELISA (ISTA 7-024).	**PA-VI-31**		2 000	16 days	**234.00**
Pea enation mosaic virus **PEMV; syn. *Umbravirus pisi*** ELISA.	**PA-VI-57**		2 000	16 days	**265.00**
Pea seed borne mosaic virus **PSbMV; syn. *Potyvirus pisumsemenportati*** ELISA (ISTA 7-024).	**PA-VI-11**		2 000	16 days	**184.00**
Bean yellow mosaic virus **BYMV; syn. *Potyvirus phaseoluteum*** ELISA.	**PA-VI-60**		2 000	16 days	**288.00**
Bean leaf roll virus **BLRV; syn. *Luteovirus phaseoli*** ELISA.	**PA-VI-67**		2 000	16 days	**263.00**
Southern bean mosaic virus **SBMV; syn. *Sobemovirus SBMV*** ELISA.	**PA-VI-88**		2 000	16 days	**263.00**
Broad bean true mosaic virus **BBTMV; syn. *Comovirus fabae*** ELISA.	**PA-VI-50**		2 000	16 days	**263.00**
Tomato					
Pepino mosaic virus **PepMV; syn. *Potexvirus pepini*** ELISA (method Anses MOA 026 **COFRAC**) and confirmation of positives and indeterminates according by RT-PCR (in house method).	**PA-VI-15CO**		1 000	16 days	**177.00**
	PA-VI-16CO		2 500	16 days	**258.00**
	PA-VI-17CO		5 000	16 days	**423.00**

Seed health - Other tests

		Size	Duration	Price
Identification of pathogens isolated and provided on medium - Supply 2 boxes/isolates.	**PA-AD-IP**	/	19 days	**54.00**
Isolation of strains from symptoms.	**PA-ISOLEM**	/	/	**54.00**
Isolation of strains from seeds.	**PA-ISOSEM**	/	/	**114.00**
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.				
Handling of the sample.	**PA-DI-PEC**	/	/	**61.00**
Identification based on symptoms.	**PA-DI-MICR**	/	/	**105.00**
Mycological identification after incubation.	**PA-DI-MY**	/	/	**204.00**
Bacteriological identification after incubation.	**PA-DI-BA**	/	/	**107.00**
Confirmation by pathogenicity test.	**PA-DI-PP**	/	/	**130.00**
Virological identification by immunological test.	**PA-DI-ELIS**	/	/	**229.00**

[40] Quarantine parasite

Seed health - Other tests

		Size	Duration	Price
Virological identification by biotest.	**PA-DI-IND**	/	/	**74.00**
PCR.	**PA-DI-PCR**	/	/	**129.00**

EVALUATION OF VARIETIES

Varietal resistance

		Size	Duration	Price
Asparagus				
Fusarium moniliforme				
Official protocol.	**PA-R-ASP-1** NEW			Contact SNES
Fusarium oxysporum* f. sp. *asparagi				
Official protocol.	**PA-R-ASP-2** NEW			Contact SNES
Eggplant				
Verticillium dahliae				
GEVES protocol.	**PA-R-AUB-1**	45	/	**197.00**
Cabbage				
***Fusarium oxysporum* f. sp. *conglutinans* race 1**				
Official protocol.	**PA-R-CHO**	45	/	**356.00**
Plasmodiophora brassicae				
GEVES protocol.	**PA-R-CHO-1**	45	/	**257.00**
Cucumber				
Cucumber mosaic virus CMV; syn. *Cucumovirus CMV*				
Official protocol.	**PA-R-CON**			Contact SNES
Cucumber green mottle mosaic virus CGMMV; syn. *Tobamovirus viridimaculae*				
GEVES protocol.	**PA-R-CON-1**	45	/	**176.00**
Zucchini yellow mosaic virus ZYMV; syn. *Potyvirus cucurbitaflavitesselati*				
Official protocol.	**PA-R-CON-2**			Contact SNES
Watermelon mosaic virus WMV; syn. *Potyvirus citrulli*				
Official protocol.	**PA-R-CON-3**			Contact SNES
***Podosphaera xanthii* race 1**				
Official protocol.	**PA-R-CON-4**	45	/	**332.00**
Squash				
Zucchini yellow mosaic virus ZYMV; syn. *Potyvirus cucurbitaflavitesselati*				
Official protocol.	**PA-R-COU-2**			Contact SNES
Watermelon mosaic virus WMV; syn. *Potyvirus citrulli*				
Official protocol.	**PA-R-COU-3**			Contact SNES
***Podosphaera xanthii* race 1**				
Official protocol.	**PA-R-COU-4**	45	/	**322.00**
Bean				
Bean common mosaic necrotic virus BCMNV; syn. *Potyvirus phaseoli*				
Official protocol.	**PA-R-HAR-1**	30	/	**157.00**
***Colletotrichum lindemuthianum* race 6 (anthracnose)**				
Official protocol.	**PA-R-HAR-2**	30	/	**173.00**
***Colletotrichum lindemuthianum* race Kappa (anthracnose)**				
CTPS protocol.	**PA-R-HAR-6**			Contact SNES
***Pseudomonas savastanoi* pv. *phaseolicola* race 6 (halo blight)**				
Official protocol.	**PA-R-HAR-3**	30	/	**182.00**

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

[40] Quarantine parasite

Varietal resistance

		Size	Duration	Price
Bean				
Xanthomonas axonopodis* pv. *phaseoli				
Official protocol.	**PA-R-HAR-4**			Contact SNES
Lettuce				
***Bremia lactucae* races Bl: 1-7EU / Bl: 10EU / Bl: 12-18EU / Bl: 20-28EU / Bl: 32EU / Bl: 34EU / Bl: 37EU / S1 / SF1 or IL4**				
Official protocol.	**PA-R-LAI-BRE**			Contact SNES
***Bremia lactucae* official races for Bl: 29EU / Bl: 30EU / Bl: 31EU / Bl: 33EU / Bl: 35EU / Bl: 36EU / Bl: 38 EU / Bl: 39EU / Bl: 40EU**				
Official protocol.	**PA-R-LAI-BRE1**	45	/	**77.00**
***Bremia lactucae* new race Bl: 41EU**				
Official protocol.	**PA-R-LAI-BRE2**	45	/	**83.00**
Bremia lactucae				
Late stage resistance.	**PA-R-LAI29**			Contact SNES
Identification of the race.	**PA-R-IDBRE**			Contact SNES
Lettuce mosaic virus pathotype II LMV-0; syn. *Potyvirus lactucae*				
CTPS protocol.	**PA-R-LAI23**	30	/	**126.00**
Lettuce mosaic virus pathotype III LMV-0; syn. *Potyvirus lactucae*				
CTPS protocol.	**PA-R-LAI24**			Contact SNES
Lettuce mosaic virus race LMV; syn. Potyvirus lactucae				
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	/	**220.00**
***Fusarium oxysporum* f.sp. *lactucae* race 4**				
Official protocol.	**PA-R-LAI41**	45	/	**240.00**
Fusarium oxysporum* f. sp. *lactucae				
Identification of the race.	**PA-R-IDFUS**			Contact SNES
***Nasonovia ribisnigri* race 0**				
Official protocol.	**PA-R-LAI35**	45	/	**183.00**
Corn salad				
***Peronospora valerianellae* race 1 or 2**				
Official protocol.	**PA-R-MAC-PV**			Contact SNES
Melon				
***Fusarium oxysporum* f. sp. *melonis* races 0, 1, 2 or 1.2**				
Official protocol.	**PA-R-MEL-FUS**	45	/	**196.00**
Cucumber mosaic virus CMV; syn. *Cucumovirus CMV*				
Official protocol.	**PA-R-MEL-5**			Contact SNES
Melon necrotic spot virus race 0 MNSV; syn. *Gammacarmovirus melonis*				
Official protocol.	**PA-R-MEL-4**	45	/	**197.00**
Morrocan watermelon mosaic virus MWMV; syn. *Potyvirus citrullimoroccense*				
Official protocol.	**PA-R-MEL-8**			Contact SNES
Zucchini yellow mosaic virus ZYMV; syn. *Potyvirus cucurbitaflavitesselati*				
Official protocol.	**PA-R-MEL10**			Contact SNES
***Podosphaera xanthii* races 1, 2, 3, 5, 3.5, 6 or 7**				
Official protocol.	**PA-R-MEL-POD**	45	/	**342.00**
Podosphaera xanthii				
Identification of the race.	**PA-R-MEL15**			Contact SNES

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

[40] Quarantine parasite

Vegetables

Varietal resistance

		Size	Duration	Price
Melon				
Fusarium oxysporum* f. sp. *melonis				
Identification of the race.	**PA-R-IDFOM**			Contact SNES
Capsicum				
Potato virus Y race 0 **PVY; syn. *Potyvirus yituberosi*** Official protocol.	**PA-R-PIM-PVY**	45	/	**192.00**
Potato virus Y races 1 ou 1.2 **PVY; syn. *Potyvirus yituberosi*** Official protocol.	**PA-R-PIM-2**			Contact SNES
Tobacco mosaic virus race 0 **TMV; syn. *Tobamovirus tabaci*** Official protocol.	**PA-R-PIM-4**	45	/	**179.00**
Pepper mild mottle virus races 1.2 ou 1.2.3 **PMMoV; syn. *Tobamovirus capsici*** Official protocol.	**PA-R-PIM-PMM**	45	/	**179.00**
Tomato spotted wilt virus race 0 **TSWV; syn. *Orthotospovirus tomatomaculae*** Official protocol.	**PA-R-PIM-7**	45	/	**179.00**
***Meloidogyne incognita* race P0** Official protocol.	**PA-R-PIM-8**			Contact SNES
Pea				
***Didymella pisi* race C** Official protocol.	**PA-R-POI-1**	30	/	**109.00**
***Fusarium oxysporum* f. sp. *pisi* race 1** Official protocol.	**PA-R-POI-2**	30	/	**121.00**
Bean yellow mosaic virus **BYMV; syn. *Potyvirus phaseoluteum*** Official protocol.	**PA-R-POI-3**	30	/	**113.00**
Pea enation mosaic virus **PEMV; syn. *Umbravirus pisi*** Official protocol.	**PA-R-POI-4**	30	/	**128.00**
Erysiphe pisi Official protocol.	**PA-R-POI-5**	30	/	**180.00**
Chickpea				
Ascochyta rabiei Official protocol.	**PA-R-P-C-1**			Contact SNES
Tomato				
***Verticillium dahliae* race 0EU** Official protocol.	**PA-R-TOM-1**	60	/	**177.00**
***Fusarium oxysporum* f. sp. *lycopersici* races 0 or 1** Official protocol.	**PA-R-TOM-FUS**	60	/	**177.00**
***Fusarium oxysporum* f. sp. *lycopersici* race 2** Official protocol.	**PA-R-TOM-4**	60	/	**188.00**
***Passalora fulva* race 0** Official protocol.	**PA-R-TOM-5**			Contact SNES
***Passalora fulva* race E** Official protocol.	**PA-R-TOM-6**	45	/	**177.00**
***Passalora fulva* new races Pf: F / G / H / I or J** Official protocol.	**PA-R-TOM-PF2**			Contact SNES
Fusarium oxysporum radicis* f. sp. *lycopersici Official protocol.	**PA-R-TOM-7**	60	/	**177.00**
***Stemphylium* spp.** Official protocol.	**PA-R-TOM-8**	45	/	**177.00**

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

[40] Quarantine parasite

Vegetables

Varietal resistance

		Size	Duration	Price
Tomato				
Tomato mosaic virus races 0, 1 ou 2 **ToMV; syn. *Tobamovirus tomatotessellati*** Official protocol.	**PA-R-TOM-TMV**	45	/	**175.00**
Tomato spotted wilt virus race 0 **TSWV; syn. *Orthotospovirus tomatomaculae*** Official protocol.	**PA-R-TOM10**	45	/	**175.00**
***Meloidogyne incognita* race T0** Official protocol.	**PA-R-TOM14**	4605	/	**139.00**
Pseudomonas syringae* pv. *tomato Official protocol.	**PA-R-TOM15**	45	/	**123.00**
Pseudopyrenochaeta lycopersici Official protocol.	**PA-R-TOM16**	60	/	**422.00**
Passalora fulva Identification of the race.	**PA-ID-PF**			Contact SNES
Tomato rootstock				
***Verticillium dahliae* race 0EU** Official protocol.	**PA-R-TPG-1**	90	/	**188.00**
***Fusarium oxysporum* f. sp. *lycopersici* races 0EU or 1EU** Official protocol.	**PA-R-TPG-FUS**	90	/	**196.00**
***Fusarium oxysporum* f. sp. *lycopersici* race 2EU** Official protocol.	**PA-R-TPG-4**	90	/	**212.00**
***Passalora fulva* race 0** Official protocol.	**PA-R-TPG-5**			Contact SNES
***Passalora fulva* race E** Official protocol.	**PA-R-TPG-6**	90	/	**188.00**
Fusarium oxysporum radicis* f. sp. *lycopersici Official protocol.	**PA-R-TPG-7**	90	/	**193.00**
***Stemphylium* spp.** Official protocol.	**PA-R-TPG-8**	90	/	**188.00**
Tomato mosaic virus races 0, 1 ou 2 **ToMV; syn. *Tobamovirus tomatotessellati*** Official protocol.	**PA-R-TPG-TMV**	90	/	**184.00**
Tomato spotted wilt virus race 0 **TSWV; syn. *Orthotospovirus tomatomaculae*** Official protocol.	**PA-R-TPG10**	90	/	**184.00**
***Meloidogyne incognita* race T0** Official protocol.	**PA-R-TPG14**			Contact SNES
Pseudopyrenochaeta lycopersici Official protocol.	**PA-R-TPG16**	90	/	**417.00**
Tomato				
ToMV: 0, ToMV: 1 et ToMV: 2 races 0, 1 et 2 ***Tomato mosaic virus*** Detection of markers linked to resistance genes. Tm2 and Tm2² genes. Resistance to the Tomatovirus.	**BI-D-GENR**			Contact BioGEVES
TSWV ***Tomato spotted wilt virus*** Detection of Sw-5 resistance gene to TSWV.	**BI-D-GENR** NEW			Contact BioGEVES
***Fusarium oxysporum* f. sp. *lycopersici* race 1 (EU) / 2 (US)** Detection of resistance gene I-2 to *Fusarium oxysporum* f. sp. lycopersici race 1 (EU) / 2 (US).	**BI-D-GENR** NEW			Contact BioGEVES

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

Determination of the identity and the varietal purity

		Size	Duration	Price
Standard protocol.	**SEV-CV**	/	/	**375.00**

[40] Quarantine parasite

Vegetables

Determination of the identity and the varietal purity

		Size	Duration	Price
Specific study - Contact SEV.	SEV-CV1	/	/	/

Genotyping by molecular biology

		Size	Duration	Price
Cabbage, Strawberry, Lettuce, Pea, Radish				
Varietal identity control - SSR.	BI-G-BM-SSR-CID-1		Contact BioGEVES	
Varietal purity analysis - SSR - 90 seeds.	BI-G-BM-SSR-PUR-90		Contact BioGEVES	
All species				
Varietal comparison - SSR.	BI-G-BM-SSR-COMP		Contact BioGEVES	
Genetic purity analysis - SSR - 180 seeds.	BI-G-BM-SSR-PU-180		Contact BioGEVES	
Genetic purity analysis - SSR - 8 x 10 seeds.	BI-G-BM-SSR-PUR-10		Contact BioGEVES	
Seed mixture detection.	BI-G-BM-SSR-PUR-40		Contact BioGEVES	
Varietal purity analysis - SSR - 90 seeds.	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: biochemicals tests

			Size	Duration	Price
Brassicaceae					
Glucosinolate content (HPLC).	BI-B-HPLC-GLS			Contact BioGEVES	
Fatty acid composition (CPG).	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	
All species					
SPEC - Spectrophotometry - custom analysis.	BI-B-CUST-DEV-SPEC			Contact BioGEVES	
RMN - Nuclear magnetic resonance spectroscopy - custom analysis.	BI-B-CUST-DEV-RMN			Contact BioGEVES	
CPG - Gas chromatography - custom analysis.	BI-B-CUST-DEV-CPG			Contact BioGEVES	
NIRS - Near-InfraRed Spectroscopy - custom analysis.	BI-B-CUST-DEV-NIRS			Contact BioGEVES	
HPLC - High-performance liquid chromatography - custom analysis.	BI-B-CUST-DEV-HPLC			Contact BioGEVES	
Tannin content (assay by spectrophotometry).	BI-B-SPEC-TAN-GEN			Contact BioGEVES	
Fatty acid composition (CPG).	BI-B-CPG-AG-GEN			Contact BioGEVES	
Glucosinolate content (HPLC).	BI-B-HPLC-GLS-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	
Phytates by spectrophotometry.	BI-B-SPEC-PHY			Contact BioGEVES	
Total polyphenols by spectrophotometry.	BI-B-SPEC-PPT	NEW		Contact BioGEVES	

[40] Quarantine parasite

Vegetables

Field tests by SEV

		Price
DUS testing - **Cucumber, Lettuce, Melon, Pepper, Tomato -** Cycle 1.	**SEV-DHS-POTMAJ1**	**2215.00**
DUS testing - **Cucumber, Lettuce, Melon, Pepper, Tomato -** Cycle 2.	**SEV-DHS-POTMAJ2**	**2090.00**
DUS testing - **Other vegetables species** - Cycle 1.	**SEV-DHS-POTMIN1**	**1495.00**
DUS testing - **Other vegetables species** - Cycle 2.	**SEV-DHS-POTMIN2**	**1395.00**

Annual subscription to the variety denomination class test

		Price
All species - 10 tests.	**SEV-DENOS-10**	**235.00**
All species - 20 tests.	**SEV-DENOS-20**	**440.00**
All species - 50 tests.	**SEV-DENOS-50**	**1030.00**
All species - 100 tests.	**SEV-DENOS-100**	**1985.00**
All species - 200 tests.	**SEV-DENOS-200**	**3870.00**

[40] Quarantine parasite

SEED QUALITY

Physical quality

			Size	Duration	Price
Thousand-seed weight					
Thousand-seed weight on pure seeds **on purity test performed by SNES.**	**MMS-01**		/	/	**34.70**
Purity analysis test					
Purity - **Ornamentals & fruits**	**PU-IS-POT2**	**NEW**	ISTA weight	/	**51.00**
Percentage of a specific type of other seeds. **Specify the species to be mentioned.**	**PU-CONS1**		/	/	**9.60**
Percentage of a specific type of inert materials. **Specify the species to be mentioned.**	**PU-CONS2**		/	/	**9.60**
Supplement for purity analysis if received as raw seeds.	**PU-LB-SUP**		/	/	**0.00**
Determination of other seeds by number (complete test)					
Complete test - **Fruit crops, Ornamentals.**	**SP-IS-17**		ISTA weight	/	**147.00**
Determination of other seeds by number on purity weight. Indication of the number of other seeds in the specific purity test.	**PU-SP-01**		/	/	**20.00**
Indication of a specific kind of other seeds, by number in a complete test. **Specify the species to be mentioned.**	**SP-CONS-1**		/	/	**9.60**
Indication of a specific kind of inert materials, by number in a complete test. **Specify the materials to be mentioned.**	**SP-CONS-2**		/	/	**9.60**
Determination of other seeds by number (limited test)					
Determination of 1 to 4 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-01**		ISTA weight	/	**68.00**
Determination of 5 to 8 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-02**		ISTA weight	/	**108.00**
Determination of more than 8 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-19**		ISTA weight	/	**130.00**
Moisture content - Provide seeds in watertight bags from which as much air as possible has been extracted					
Oven method.	**TE-SN-01**		ISTA weight	/	**21.90**
Identification of individual seeds					
Visual identification by species.	**ID-IS-01**		/	/	**36.80**
Insects detection					
Insect detection and identification in a seed sample. Analyse performed on a separate, sealed, submitted subsample.	**DET-ID-INS**		2 500 or ISTA weight	/	**86.00**
Individual identification of regulated bruchid. Visual identification to determine the species of an individual among *Bruchus pisorum*, *Bruchus rufimanus* , and *Acanthoscelides obtectus.*	**ID-BRUCHE**	**NEW**	/	/	**36.00**

Physiological quality

		Size	Duration	Price
Germination test on 400 seeds				
Trees, Shrubs.	**GE-FG-24-4**	1 250	/	**101.00**
Flowers.	**GE-FG-20-4**	1 250	/	**80.00**
Bulbs and bulblets.	**GE-BULB-4**	1 250	/	**161.00**
Germination test on 200 seeds				
Trees, Shrubs.	**GE-FG-24-2**	500	/	**80.00**
Flowers.	**GE-FG-20-2**	500	/	**65.00**
Bulbs and bulblets.	**GE-BULB-2**	500	/	**130.00**
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	/	**233.00**
Hornbeam, Maple, Ash, Stone fruits, Beech, Lavender, Rosemary.	**GE-TZ-2-4**	500	/	**196.00**
Amelanchier, Conifers, *Ligustrum*, Mahonia, Apple, Pear, Sorbier, .	**GE-TZ-1-4**	500	/	**185.00**
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	/	**160.00**
Hornbeam, Maple, Ash, Stone fruits, Beech, Lavender, Rosemary.	**GE-TZ-2-2**	300	/	**135.00**
Amelanchier, Conifers, *Ligustrum*, Mahonia, Apple, Pear, Sorbier, .	**GE-TZ-1-2**	300	/	**124.00**

[40] Quarantine parasite

Physiological quality

		Size	Duration	Price
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	/	**124.00**
Hornbeam, Maple, Ash, Stone fruits, Beech, Lavender, Rosemary.	**GE-TZ-2-1**	200	/	**99.00**
Amelanchier, Conifers, *Ligustrum*, Mahonia, Apple, Pear, Sorbier, .	**GE-TZ-1-1**	200	/	**86.00**
Complementary determinations in addition to the germination test				
Detailed description of seedlings and seeds on 400 seeds.	**GE-FG-DET**	1 250	/	**44.20**
Detailed description of seedlings and seeds on 200 seeds.	**GE-FG-DET2**	500	/	**22.00**
Percentage of a particular type of seedling.	**GE-FG-PCPL**	/	/	**24.50**
Provision of the result of repetitions.	**GE-FG-REP**	/	/	**14.20**
Additional testing time required on 400 seeds				
Additional duration of 7 days for a germination test.	**GE-FG-7S4**	1 250	/	**17.20**
Additional duration of 14 days for a germination test.	**GE-FG-14S4**	500	/	**34.60**
Additional testing time required on 200 seeds				
Additional duration of 7 days for a germination test.	**GE-FG-7S2**	500	/	**8.70**
Additional duration of 14 days for a germination test.	**GE-FG-14S2**	500	/	**17.30**
Verification of species				
Verification of species after germination test.	**GE-ENR**	/	/	**10.00**
Verification of species on pelleted seeds, when only a purity test is resquested.	**GE-VERIF**	/	/	**25.50**
Energy				
Germination energy (intermediate counting; germination capacity supplement). The date of counting for the energy varies according to the species.	**GE-EG**	500	/	**21.10**
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**	/	/	**24.50**
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

Nematology

		Size	Duration	Price
Bulbs, bulblets, corms, rhizomes, tubers				
Ditylenchus dipsaci				
Filtration and morphological identification (method Anses MOA013 parts A **COFRAC** and B **COFRAC**). **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	**141.00**
All species				
Heterodera* group *schachtii, Heterodera* group *goettingiana, Heterodera* group *avenae.				
Detection and identification on soil samples.	**PA-NE-SOL1**	300 g	30 days	**216.00**

Seed health - Other tests

		Size	Duration	Price
Identification of pathogens isolated and provided on medium - Supply 2 boxes/isolates.	**PA-AD-IP**	/	19 days	**54.00**
Isolation of strains from symptoms.	**PA-ISOLEM**	/	/	**54.00**
Isolation of strains from seeds.	**PA-ISOSEM**	/	/	**114.00**
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.				
Handling of the sample.	**PA-DI-PEC**	/	/	**61.00**
Identification based on symptoms.	**PA-DI-MICR**	/	/	**105.00**
Mycological identification after incubation.	**PA-DI-MY**	/	/	**204.00**
Bacteriological identification after incubation.	**PA-DI-BA**	/	/	**107.00**
Confirmation by pathogenicity test.	**PA-DI-PP**	/	/	**130.00**

[40] Quarantine parasite

Seed health - Other tests

		Size	Duration	Price
Virological identification by immunological test.	PA-DI-ELIS	/	/	229.00
Virological identification by biotest.	PA-DI-IND	/	/	74.00
PCR.	PA-DI-PCR	/	/	129.00

EVALUATION OF VARIETIES

Determination of the identity and the varietal purity

		Size	Duration	Price
Standard protocol.	SEV-CV	/	/	375.00
Specific study - Contact SEV.	SEV-CV1	/	/	/

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 - SSR.	BI-G-BM-SSR-CID-1		Contact BioGEVES	
Almond, Raspberry bush				
Varietal comparison - SSR.	BI-G-BM-SSR-COMP		Contact BioGEVES	
Quince				
Varietal identity control - SSR.	BI-G-BM-SSR-CID-9		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	
All species				
Varietal comparison - SSR.	BI-G-BM-SSR-COMP		Contact BioGEVES	
Genetic purity analysis - SSR - 180 seeds.	BI-G-BM-SSR-PU-180		Contact BioGEVES	
Genetic purity analysis - SSR - 8 x 10 seeds.	BI-G-BM-SSR-PUR-10		Contact BioGEVES	
Seed mixture detection.	BI-G-BM-SSR-PUR-40		Contact BioGEVES	
Varietal purity analysis - SSR - 90 seeds.	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: biochemicals tests

		Size	Duration	Price
All species				
SPEC - Spectrophotometry - custom analysis.	BI-B-CUST-DEV-SPEC		Contact BioGEVES	
RMN - Nuclear magnetic resonance spectroscopy - custom analysis.	BI-B-CUST-DEV-RMN		Contact BioGEVES	
CPG - Gas chromatography - custom analysis.	BI-B-CUST-DEV-CPG		Contact BioGEVES	
NIRS - Near-InfraRed Spectroscopy - custom analysis.	BI-B-CUST-DEV-NIRS		Contact BioGEVES	
HPLC - High-performance liquid chromatography - custom analysis.	BI-B-CUST-DEV-HPLC		Contact BioGEVES	
Tannin content (assay by spectrophotometry).	BI-B-SPEC-TAN-GEN		Contact BioGEVES	
Fatty acid composition (CPG).	BI-B-CPG-AG-GEN		Contact BioGEVES	
Glucosinolate content (HPLC).	BI-B-HPLC-GLS-GEN		Contact BioGEVES	
Antitrypsic activity.	BI-B-SPECT-FAT-GEN		Contact BioGEVES	
Glucosinolate content (NIRS).	BI-B-NIRS-NGLS		Contact BioGEVES	

[40] Quarantine parasite

Ornamental and Fruit crops

Technological quality: biochemicals tests

			Size	Duration	Price
All species					
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
Phytates by spectrophotometry.	**BI-B-SPEC-PHY**				Contact BioGEVES
Total polyphenols by spectrophotometry.	**BI-B-SPEC-PPT**	NEW			Contact BioGEVES

Bud sample for genotyping

		Price
Cost of sampling for 1 INRAE site and 1 applicant/breeder.	**SEV-ECHF-FOR**	**403.00**
Cost for 1 sampled variety.	**SEV-ECHF-VAR**	**44.00**
Packaging by INRAE examiner for 1 site and for 1 to 5 varieties.	**SEV-ECHF-COND5**	**162.00**
Packaging by INRAE examiner for 1 site and for 6 to 10 varieties.	**SEV-ECHF-COND10**	**322.00**
Packaging by INRAE examiner for 1 site and for 11 to 50 varieties.	**SEV-ECHF-COND50**	**668.00**
Cost of sending for 1 site (possible to pick the samples directly on the site).	**SEV-ECHF-ENV**	**133.00**

Field tests by SEV

		Price
DUS testing - **Fruit trees and rootstock** - New variety, installation year.	**SEV-DHS-FRU1**	**1225.00**
DUS testing - **Fruit trees and rootstock** - New variety, following years.	**SEV-DHS-FRU2**	**2450.00**
DUS testing - **Ornementals species.**	**SEV-DHS-ORN**	**3150.00**
DUS testing - **Vine** - Year 1, 2, 3.	**SEV-DHS-VIG1**	**1180.00**
DUS testing - **Vine** - Year 4, 5.	**SEV-DHS-VIG2**	**2360.00**

Annual subscription to the variety denomination class test

		Price
All species - 10 tests.	**SEV-DENOS-10**	**235.00**
All species - 20 tests.	**SEV-DENOS-20**	**440.00**
All species - 50 tests.	**SEV-DENOS-50**	**1030.00**
All species - 100 tests.	**SEV-DENOS-100**	**1985.00**
All species - 200 tests.	**SEV-DENOS-200**	**3870.00**

[40] Quarantine parasite

Aromatic medicinal

SEED QUALITY

Physical quality

			Size	Duration	Price
Thousand-seed weight					
Thousand-seed weight on pure seeds **on purity test performed by SNES.**	**MMS-01**		/	/	**34.70**
Purity analysis test					
Purity - **Aromatics & medicinals**	**PU-IS-POT2**	NEW	ISTA weight	/	**51.00**
Percentage of a specific type of other seeds. **Specify the species to be mentioned.**	**PU-CONS1**		/	/	**9.60**
Percentage of a specific type of inert materials. **Specify the species to be mentioned.**	**PU-CONS2**		/	/	**9.60**
Supplement for purity analysis if received as raw seeds.	**PU-LB-SUP**		/	/	**0.00**
Counting of all other seeds					
Complete test - **Aromatic, Medicinal.**	**SP-IS-17**		ISTA weight	/	**147.00**
Determination of other seeds by number on purity weight. Indication of the number of other seeds in the specific purity test.	**PU-SP-01**		/	/	**20.00**
Indication of a specific kind of other seeds, by number in a complete test. **Specify the species to be mentioned.**	**SP-CONS-1**		/	/	**9.60**
Indication of a specific kind of inert materials, by number in a complete test. **Specify the materials to be mentioned.**	**SP-CONS-2**		/	/	**9.60**
Determination of other seeds by number (limited test)					
Determination of 1 to 4 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-01**		ISTA weight	/	**68.00**
Determination of 5 to 8 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-02**		ISTA weight	/	**108.00**
Determination of more than 8 species by number (except for *Orobanchaceae*). **Indicate the name of the species to be searched.**	**SP-LI-19**		ISTA weight	/	**130.00**
Moisture content - Provide seeds in watertight bags from which as much air as possible has been extracted					
Oven method.	**TE-SN-01**		ISTA weight	/	**21.90**
Identification of individual seeds					
Visual identification by species.	**ID-IS-01**		/	/	**36.80**
Insects detection					
Insect detection and identification in a seed sample. Analyse performed on a separate, sealed, submitted subsample.	**DET-ID-INS**		2 500 or ISTA weight	/	**86.00**
Individual identification of regulated bruchid. Visual identification to determine the species of an individual among *Bruchus pisorum*, *Bruchus rufimanus* , and *Acanthoscelides obtectus.*	**ID-BRUCHE**	NEW	/	/	**36.00**

Physiological quality

		Size	Duration	Price
Germination test on 400 seeds				
Aromatics and medicinals.	**GE-FG-22-4**	1 250	/	**77.00**
Germination test on 200 seeds				
Aromatics and medicinals.	**GE-FG-22-2**	500	/	**62.00**
Complementary determinations in addition to the germination test				
Detailed description of seedlings and seeds on 400 seeds.	**GE-FG-DET**	1 250	/	**44.20**
Detailed description of seedlings and seeds on 200 seeds.	**GE-FG-DET2**	500	/	**22.00**
Percentage of a particular type of seedling.	**GE-FG-PCPL**	/	/	**24.50**
Provision of the result of repetitions.	**GE-FG-REP**	/	/	**14.20**
Additional testing time required on 400 seeds				
Additional duration of 7 days for a germination test.	**GE-FG-7S4**	1 250	/	**17.20**
Additional duration of 14 days for a germination test.	**GE-FG-14S4**	500	/	**34.60**
Additional testing time required on 200 seeds				
Additional duration of 7 days for a germination test.	**GE-FG-7S2**	500	/	**8.70**
Additional duration of 14 days for a germination test.	**GE-FG-14S2**	500	/	**17.30**
Verification of species				
Verification of species after germination test.	**GE-ENR**	/	/	**10.00**
Verification of species on pelleted seeds, when only a purity test is resquested.	**GE-VERIF**	/	/	**25.50**

[40] Quarantine parasite

Aromatic medicinal

Physiological quality

		Size	Duration	Price
Tetrazolium viability test **For results within** **a week, reception of seeds on Tuesday at the latest.**				
Tetrazolium test on 400 seeds.	**GE-TZ-1**	500	/	**185.00**
Tetrazolium test on 200 seeds.	**GE-TZ-2**	300	/	**124.00**
Tetrazolium test on 100 seeds.	**GE-TZ-3**	200	/	**86.00**
Energy				
Germination energy (intermediate counting; germination capacity supplement). The date of counting for the energy varies according to the species.	**GE-EG**	500	/	**21.10**
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**	/	/	**24.50**
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 (TSW), if not indicated on the request or incorrect for bacteriology and virology tests.	**PA-MMS**	/	/	**39.00**

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	**333.00**
Pseudomonas syringae* pv. *apii				
Agar method + PCR in case of suspect colonies.	**PA-BA-106**	30 000	36 days	**295.00**
Pseudomonas syringae* pv. *coriandricola				
Agar method + PCR in case of suspect colonies.	**PA-BA-107**	30 000	26 days	**308.00**
***Candidatus* Liberibacter solanacearum**				
Detection by PCR.	**PA-BA-CAND**	20 000	10 days	**144.00**
Dill, Coriander, Parsley - Detection of 2 pathogens				
Pseudomonas syringae* pv. *apii* + *Pseudomonas syringae* pv. *coriandricola				
Agar method + PCR in case of suspect colonies.	**PA-BA-108**	30 000	26 days	**381.00**
Pseudomonas syringae* pv. *apii* + *Pseudomonas viridiflava				
Agar method + PCR in case of suspect colonies.	**PA-BA-109**	30 000	26 days	**390.00**
Pseudomonas syringae* pv. *coriandricola* + *Pseudomonas viridiflava				
Agar method + PCR in case of suspect colonies.	**PA-BA-110**	30 000	26 days	**390.00**
Dill, Coriander, Parsley - Detection of 3 pathogens				
Pseudomonas syringae* pv. *apii* + *Pseudomonas syringae* pv. *coriandricola* + *Pseudomonas viridiflava				
Agar method + PCR in case of suspect colonies.	**PA-BA-111**	30 000	26 days	**448.00**
All species				
Supplement fee for counting of colonies				
1 pathogen in 5 000 seeds.	**PA-BA-19**	5 000	/	**27.00**
1 pathogen in 30 000 seeds.	**PA-BA-20**	30 000	/	**66.00**
More than 1 pathogen in 5 000 seeds.	**PA-BA-81**	5 000	/	**42.00**
More than 1 pathogen in 30 000 seeds.	**PA-BA-82**	30 000	/	**122.00**

[40] Quarantine parasite

Aromatic medicinal

Mycology - See p.7 "Seed health"

		Size	Duration	Price
Dill				
Stemphylium botryosum, Alternaria radicina (Stemphylium radicinum) and/or Alternaria carotiincultae, *Fusarium* sp., *Botrytis* sp.				
Agar method without superficial disinfection.	**PA-ES-ANF**	400	19 days	**113.00**
Basil				
Fusarium oxysporum, *Fusarium sambucinum* complex*, Fusarium* sp., *Botrytis* sp.				
Agar method without superficial disinfection.	**PA-ES-BAS**	400	19 days	**113.00**
***Peronospora* sp.**				
Grow-out test.	**PA-MIBASGO**	400	42 days	**137.00**
	PA-MIBASG3	3 000	42 days	**277.00**
Lavender				
***Phomopsis lavandulae, Botrytis* sp., *Fusarium* sp.,** *Phoma* sp.				
Agar method without superficial disinfection.	**PA-ES-LAV**	400	19 days	**113.00**
Parsley				
Septoria petroselini				
Direct visual observation. **UNTREATED seeds only.**	**PA-SE-PER**	1 000	15 days	**93.00**
Direct visual observation + counting. **UNTREATED seeds only.**	**PA-SE-PERD**	1 000	15 days	**108.00**
***Plasmopara nivea* (syn. *Peronospora crustosa*)**				
Seed wash method. **UNTREATED seed only.**	**PA-MI-PER**	500	15 days	**109.00**
Alternaria petroselini* (syn. *Stemphylium radicinum* var. *petroselini), Alternaria dauci, *Fusarium* sp., *Botrytis* sp.				
Agar method without superficial disinfection.	**PA-ES-PER**	400	19 days	**113.00**
All species				
***Fusarium* spp.**				
Identification of *Fusarium* species in addition to detection test.	**PA-ID-FUS**	/	19 days	**282.00**
***Helminthosporium* spp. (*Pyrenophora* spp.)**				
Identification of species of *Helminthosporium* in addition to detection test.	**PA-ID-HEL**	/	/	**137.00**
Supplement for spore counting, washing methods **In case of a positive wash result, the laboratory may add a counting service if necessary and if the customer has mentioned this in their initial request**				
Counting by classes (0;1-10;11-100;>100).	**PA-MY-DCLA**	/	/	**69.00**
Counting by unit.	**PA-MY-DEN**	/	/	**112.00**

Seed health - Other tests

		Size	Duration	Price
Identification of pathogens isolated and provided on medium - Supply 2 boxes/isolates.	**PA-AD-IP**	/	19 days	**54.00**
Isolation of strains from symptoms.	**PA-ISOLEM**	/	/	**54.00**
Isolation of strains from seeds.	**PA-ISOSEM**	/	/	**114.00**
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.				
Handling of the sample.	**PA-DI-PEC**	/	/	**61.00**
Identification based on symptoms.	**PA-DI-MICR**	/	/	**105.00**
Mycological identification after incubation.	**PA-DI-MY**	/	/	**204.00**
Bacteriological identification after incubation.	**PA-DI-BA**	/	/	**107.00**
Confirmation by pathogenicity test.	**PA-DI-PP**	/	/	**130.00**
Virological identification by immunological test.	**PA-DI-ELIS**	/	/	**229.00**
Virological identification by biotest.	**PA-DI-IND**	/	/	**74.00**
PCR.	**PA-DI-PCR**	/	/	**129.00**

EVALUATION OF VARIETIES

Determination of the identity and the varietal purity

		Size	Duration	Price
Standard protocol.	**SEV-CV**	/	/	**375.00**
Specific study - Contact SEV.	**SEV-CV1**	/	/	**/**

[40] Quarantine parasite

Aromatic medicinal

Genotyping by molecular biology

		Size	Duration	Price
Poppy				
Varietal identity control - SSR.	**BI-G-BM-SSR-CID**			Contact BioGEVES
All species				
Varietal comparison - SSR.	**BI-G-BM-SSR-COMP**			Contact BioGEVES
Genetic purity analysis - SSR - 180 seeds.	**BI-G-BM-SSR-PU-180**			Contact BioGEVES
Genetic purity analysis - SSR - 8 x 10 seeds.	**BI-G-BM-SSR-PUR-10**			Contact BioGEVES
Seed mixture detection.	**BI-G-BM-SSR-PUR-40**			Contact BioGEVES
Varietal purity analysis - SSR - 90 seeds.	**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: biochemicals tests

		Size	Duration	Price
Stevia				
Steviosid and rebaudiosid A content by high performance liquid chromatography (HPLC).	**BI-B-HPLC-STEV**			Contact BioGEVES
All species				
SPEC - Spectrophotometry - custom analysis.	**BI-B-CUST-DEV-SPEC**			Contact BioGEVES
RMN - Nuclear magnetic resonance spectroscopy - custom analysis.	**BI-B-CUST-DEV-RMN**			Contact BioGEVES
CPG - Gas chromatography - custom analysis.	**BI-B-CUST-DEV-CPG**			Contact BioGEVES
NIRS - Near-InfraRed Spectroscopy - custom analysis.	**BI-B-CUST-DEV-NIRS**			Contact BioGEVES
HPLC - High-performance liquid chromatography - custom analysis.	**BI-B-CUST-DEV-HPLC**			Contact BioGEVES
Tannin content (assay by spectrophotometry).	**BI-B-SPEC-TAN-GEN**			Contact BioGEVES
Fatty acid composition (CPG).	**BI-B-CPG-AG-GEN**			Contact BioGEVES
Glucosinolate content (HPLC).	**BI-B-HPLC-GLS-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
Phytates by spectrophotometry.	**BI-B-SPEC-PHY**			Contact BioGEVES
Total polyphenols by spectrophotometry.	**BI-B-SPEC-PPT** NEW			Contact BioGEVES

Field tests by SEV

		Price
DUS testing - **Aromatic, Medicinal plants.**	**SEV-DHS-AROMED**	**3150.00**

Annual subscription to the variety denomination class test

		Price
All species - 10 tests.	**SEV-DENOS-10**	**235.00**
All species - 20 tests.	**SEV-DENOS-20**	**440.00**
All species - 50 tests.	**SEV-DENOS-50**	**1030.00**
All species - 100 tests.	**SEV-DENOS-100**	**1985.00**
All species - 200 tests.	**SEV-DENOS-200**	**3870.00**

[40] Quarantine parasite

SEED QUALITY

Physiological quality

Quality control tests on substrates for germination testing		Price
Determination of the water holding capacity of a substrate including moisture content.	GE-SUB-1	**98.00**
Determination of the pH of a substrate.	GE-SUB-2	**63.00**
Determination of the conductivity of a substrate.	GE-SUB-3	**63.00**
Assessment of the innocuity of a substrate (determination of the % of seedlings intoxicated by the substrate, on 2 sensitive species).	GE-SUB-4	**142.00**
Viability determination of seeds in a soil or a substrate.	GE-SUB-5	**Contact SNES**

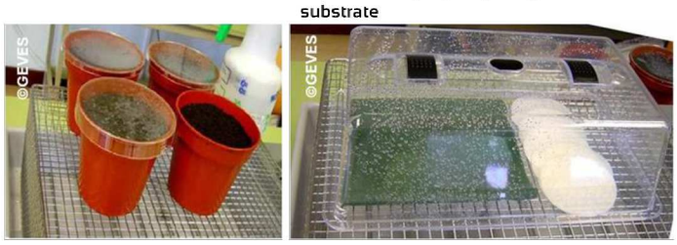
Quantity to provide for substrate checks (the retest is included in the quantities):

	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	20 kg	10 kg

Assessment of the innocuity of a germination substrate

Assessment of the innocuity of peat for the germination of sensitive species (example presented on *Hordeum vulgare*)

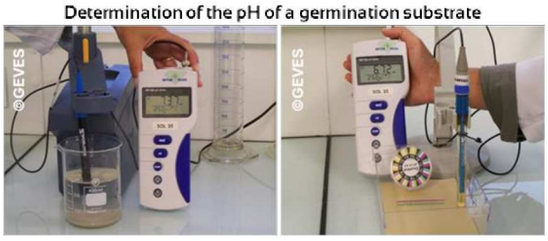
Determination of the maximum water holding capacity of a germination substrate



Determination of the water holding capacity of organic growing media

Determination of the water holding capacity on paper

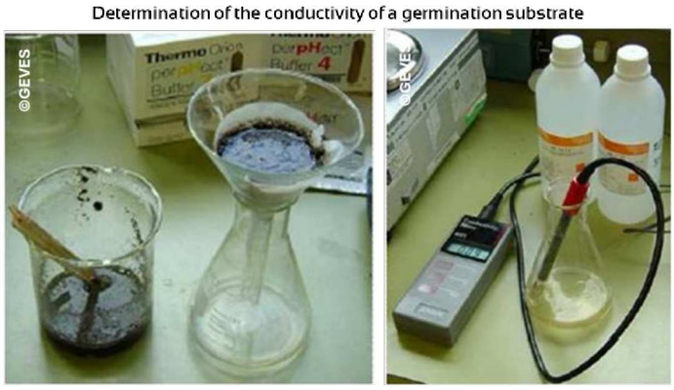
Determination of the pH of a germination substrate



Determination of the pH of sand

Determination of the pH of paper

Determination of the conductivity of a germination substrate



Determination of the conductivity of organic growing media

Autres contrôles de substrats

		Price
Viability determination of seeds in a soil or a substrate.	GE-SUB-5	**Contact SNES**

Micro-cleaning

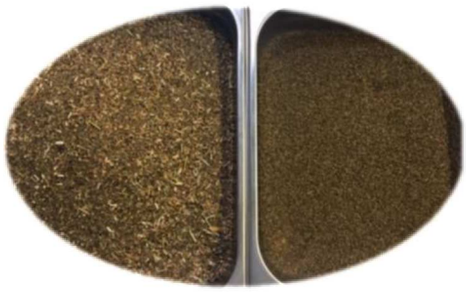
Micro-cleaning of seed lots consists in determining the percentage of waste in raw seed lots, from a harvest, using sorting machines, laboratory replicates of industrial machines.

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 IS IT 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. 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 equipment's to clean every type 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.

Micro-cleaning for 1kg maximum – Contact SNES

Standard protocol with compliance with standards, use of micro sorting devices identical to industrial sorting.

Beets.	**MN-SN-01**
Carrot.	**MN-SN-03**
Cereals.	**MN-SN-07**
Chicory.	**MN-SN-09**
Cucurbits, Beans, Peas.	**MN-SN-02**
Small legumes, cocksfoot, fescue.	**MN-SN-10**
Quinoa.	**MN-SN-08**
Flower seeds.	**MN-SN-06**
Pre-sorted flower seeds.	**MN-SN-06B**
Other vegetables.	**MN-SN-04**
Other large crop species.	**MN-SN-05**
Supplement for non-pre-sorted or dirty lots per hour	**MN-SN-11**

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

Cytology

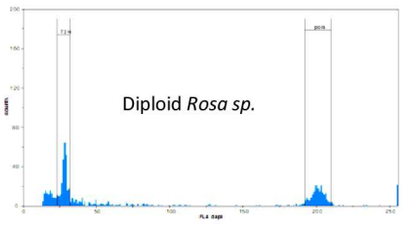
Evaluation of ploidy level from plants or seeds.

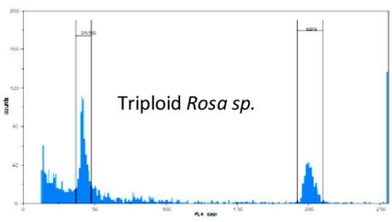
Cytology analyses carried out by the SNES aim to determine the level of ploidy by chromosome counting of root meristematic cells and/or flow cytometry.
Ploidy defines the number of chromosome copies of a cell. The level of ploidy is characteristic of the species or variety. These analyses can be carried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

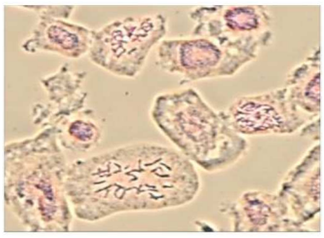
Flow cytometry is mainly used to determine the level of ploidy of a series of plants and variety. In some cases, flow cytometer is also used to identify species with a very similar morphology or mutilated or poorly formed seeds.



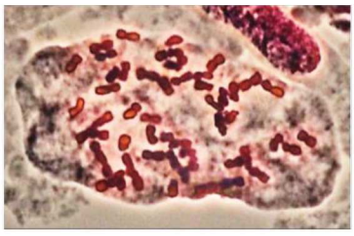


MICROSCOPY

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

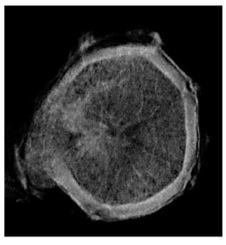
Tools for evaluating seed quality.

WHY USE 2D OU 3D RADIOGRAPHY?

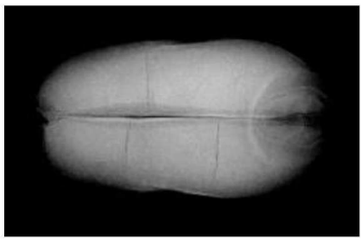
Radiography is a non-destructive method that allows the internal morphology of seeds to be visualised. The objective is to understand or predict problems of physical or germinative quality. This tool also allows the phenotyping of precise traits of interest according to the request.

WHAT IS THE DIFFERENCE BETWEEN 2D RADIOGRAPHY AND TOMOGRAPHY?

2D radiography allows for rapid observation of various criteria on seeds (physical damage, empty seeds, damage caused by insects, etc.). This technology provides a qualitative diagnosis of the internal morphology. The physical analysis laboratory is accredited by ISTA for these analyses.



Empy seed



Physical damages

Insect damages

3D radiography (tomography) is a technology that generates a 3D image of an object's internal structure. When applied to seeds, this tool can be used to measure various characteristics and obtain highly accurate quantitative data. There are a variety of possible applications: characterisation of genotypes/varieties/batches, quantification of damage caused by pathogens/insects, physical damage, etc...

Evaluation of the quality of the coating

Quantification of insect damages

Quantification of cracks on a Corn seed

2D radiography		**Tar**
Feasibility study for 2D X-ray project	**RX-FAISA-2D**	Contacter la SNES
2D radiography image acquisition - PHENOTIC	**RX-ACQ-01**	Contacter la SNES
Delivery of a 2D radio image in jpg format	**RX-IMAG-01**	Contacter la SNES
Visual interpretation of a 2D image - PHENOTIC	**RX-INTER-01**	Contacter la SNES
Specific development for 2D image analysis	**RX-DEV-01**	Contacter la SNES
X-ray acquisition of 400 seeds for the detection of categories according to the ISTA method	**RX-IS-ISTA**	Contacter la SNES
3D tomography		
Feasibility study for 3D X-ray project	**RX-FAISA-3D**	Contacter la SNES
3D tomography image acquisition - PHENOTIC	**RX-ACQ-02**	Contacter la SNES
Visual or existing 3D image processing - PHENOTIC	**RX-INTER-02**	Contacter la SNES
Delivery of a 3D image in jpg format	**RX-IMAG-02**	Contacter la SNES
Specific development for 3D image analysis	**RX-DEV-02**	Contacter la SNES

Requests for information or analyses: bea-tomographe@geves.fr

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

GEVES, member of the Biocontrol and Biostimulation Association for Agroecology, offers its expertise for the characterization and evaluation of the effects 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	**47.80**

SELECTIVITY TESTS

To check the selectivity of a treatment, the germination test should be determined on 400 seeds.		Price
Cereals.	GE-FG-01-4	**53.00**
Vegetables (except species below).	GE-FG-18-4	**68.00**
Vegetables - Celery, Faba bean, Corn salad, Parsley.	GE-FG-22-4	**75.00**
Oilseeds - Rapeseed.	GE-FG-17-4	**56.00**
Oilseeds - Sunflower.	GE-FG-16-4	**62.00**

The percentage of seedlings showing phytotoxicity symptoms can be provided specifically.		
All species.	GE-FG-PCPL	**24.00**

EVALUATION OF TREATMENTS FOR SEED AND PLANT PROTECTION

			Contact
Evaluation of phytochemical products.	PA-EVAL-CHI		ophelie.dubreu@geves.fr
Evaluation of biocontrol products, physical treatments and disinfection process.	PA-EVAL-BI		
Evaluation of synergy between two products or treatment methods: biocontrol treatment / conventional treatment / physical treatment / disinfection process.	PA-EVAL-SYN	NEW	

Few examples of available pathosystems [5]

Beet	*Aphanomyces cochlioides*.
Wheat	*Microdochium nivale ; Tilletia caries ; Fusarium* spp. ; *Puccinia striiformis ; Puccinia triticina ; Pythium* sp.
Spinach	*Pythium sp.*
Cabbage	*Hyaloperonospora brassicae.*
Rapeseed	*Plasmodiophora brassicae ; Phoma lingam ; Fusarium sp. ; Alternaria brassicicola ; Rhizoctonia solani.*
Lettuce	*Fusarium oxysporum* race 1 et 4.
Maize	*Fusarium sp. ; Pythium sp. ; Rhizoctonia solani.*
Tomato	*Meloidogyne incognita ; Rhizoctonia solani.*
Sunflower	*Botrytis cinerea ; Plasmopara halstedii ; Fusarium sp.*

[5] ***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	**21.100**
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	**80.00**
Dry biomass of 4 replicates of 20 seedlings after germination test.	GE-BIOM	**57.00**
Total length and root classification per diameter (4 replicates of 20 seedlings).	GE-CLASS	**78.00**
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)

Pests' inoculum

		Price
One tray of 140 seedlings infected by a race of stripe/yellow rust (*Puccinia striiformis*). Contact jean-philippe.maigniel@geves.fr.	PA-AD-ROU2	139.00
Contact SNES		
Suspension of *Ditylenchus dipsaci larvae* (exemple of price: 1 335€ to inoculate 9000 plants).	PA-AD-DIT	/
Inoculum supplied in Petri dishes.	PA-AD-INOC	/
Inoculum supplied as contaminated cotyledons, plants or fresh leaves.	PA-AD-INOP	/
Inoculum supplied in artificially contaminated grains that have lost germination capacity or artificially contaminated seeds that have maintained a germination capacity.	PA-AD-INOG	/
Inoculum supplied in liquid suspension.	PA-AD-INOL	/
Cyst of *Globodera pallida*[40] or *Globodera rostochiensis*[40].	PA-AD-GLO	/
Cyst of *Heterodera schachtii.*	PA-AD-HET	/

Reference material: pests

		Price
Pest isolates and populations		
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	179.00
Specific preparation of 5 g of galls of *Meloidogyne incognita* (for inoculation of 15 to 20 plantlets).	PA-AD-MEL	192.00
Specific preparation of 5 g of galls of *Plasmodiophora brassicae* (for inoculation of 50 to 100 plantlets).	PA-AD-PLAD	192.00
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	67.00
50 to 100 seeds of germinated **Sunflower** seeds contaminated by *Plasmopara halstedii* (downy mildew).	PA-AD-TOU2	192.00
Lettuce seedlings infected with 1 race of *Bremia lactucae*, 30 cotyledons in the test period.	PA-AD-BREM	192.00
Erysiphe pisi, 2 seedlings with presence of sporulation.	PA-AD-ERYS	192.00
2 cotyledons of **Melon** infected by 1 race of *Golovinomyces cichoracearum* (powdery mildew).	PA-AD-GOL	192.00
2 cotyledons of **Melon** infected by 1 race of *Podosphaera xanthii* (powdery mildew).	PA-AD-POD	192.00
2 **Lettuce** seedlings infected with *Nasonovia ribisnigri* race Nr: 0 with presence of apterae.	PA-AD-NAS	192.00
30 leaves of **Basil** contaminated by *Peronospora belbahri.*	PA-AD-BEL	192.00
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	390.00
Carrot.	PA-HD-CAR	54.00
Squash.	PA-HD-COU	94.00
Cabbage.	PA-HD-CHO	94.00
Bean.	PA-HD-HAR	74.00
Lettuce.	PA-HD-LAI	74.00
Corn salad.	PA-HD-MAC	54.00
Melon.	PA-HD-MEL	94.00
Capsicum.	PA-HD-PIM	109.00
Pea.	PA-HD-POI	74.00
Tomato.	PA-HD-TOM	94.00
Tomato Rootstock.	PA-HD-PGTO	109.00
Shipping of controls/differential hosts vegetables (MATREF)		
Cost for shipping out of EU. NEW	PA-HD-FORHUE	105.00

[40] Quarantine parasite

INTER-LABORATORY PROFICIENCY TESTS (ILPT)

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).

Inter-laboratory proficiency tests – PT & Other comparisons (basis 10 participants)

	Price / Participant[4]	Contact
Purity by sample - **All species.**	**From 245.00**	eil.semences@geves.fr
Germination by sample - **All species.**	**From 153.00**	
Moisture content by sample - **All species.**	**From 209.00**	
Thousand-seed weight by sample - **All species.**	**From 214.00**	
Seed health.	**Contact SNES**	
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**	

[4] Indicative price, may be increased in the event of a low number of participants and/or due to shipping cost.

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.		**Contact SNES**	formation.semences@geves.fr
Technichal training with BioGEVES.		**Contact BioGEVES**	biogeves.analyses@geves.fr
Technichal training with SEV.		**Contact SEV**	rachel.tessier@geves.fr
For the setting up of an expertise in an international context			
Technical expertise and visit.		**Contact SNES**	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**	**113.00**	lnr.semences@geves.fr

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 contact appears in the GEVES price list. GEVES acknowledges to the customer the receipt of the complaint, registers it, analyzes it to decide on an appropriate treatment and guarantees its implementation as soon as possible. GEVES shall inform the plaintiff of the progress of the claim. At the end of the processing of the complaint, the conclusions are notified to the plaintiff.

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. For more information : https://www.geves.fr/information-for-all-species/recommendations-for-sending-seeds-and-seedlings-to-geves/

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. The reports provided by GEVES' laboratories can in no way being modified, reproduced or diffused 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.

JUR/VEN/E/006 Indice : 4