

**Variety and Seed Study and Control Group** 





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# GEVES: A unique &

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



• The French National Research Institute for Agriculture, Food and Environment (INRAE)- 60%



• The French Ministry of Agriculture and Food (MAA) - 20%



The French Interprofessional Organisation for Seeds and Plants - 20%

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

#### Governance of GEVES

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

- 6 representatives from INRAE
- 2 representatives from the Ministry of Agriculture and Food
- 2 representatives from GNIS
- ${\it 2 staff representatives from GEVES}\\$
- The President of the CTPS

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

Organisation of GEVES's operating divisions

4 labs

SEV Variety Studies Department Station

Seed Testing Station

L'Anjouère O Brion Angers-Beaucouzé

L'Anjouère O Angers-Beaucouzé

L'Anjouère O Clermont-Ferrand

L'Anjouère O Cavaillon Carpentras

3 Units

O Cavaillon Carpentras

Saint-Martin-de-Hinx

#### 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 (RNQPmatrix seeds)

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

GEVES is the National Reference Laboratory for:

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

GEVES is an approved laboratory for certain seed health quality tests

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

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

#### **Activities**

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

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





#### Quality, Recognition & Accreditation

GEVES benefits from a global and harmonised Quality Management System.

GEVES is recognised as follows:

- ▶ Certification ISO 9001: version 2015 BioGEVES and VCUS variety testing (Value for Cultivation, Use and Sustainability) since 2009
- ▶ Accreditation of GEVES's SNES and BioGEVES laboratories by Cofrac according to ISO 17025 standard:
  - GEVES Beaucouzé: Cofrac N°1-1316 (since 2002).
  - GEVES Le Magneraud: Cofrac N°1-6176 (since 2004).
- ▶ Accreditation by ISTA since 2001 (N°FRDL0200) for seed testing
- ▶ Entrusted by the CPVO for DUS variety testing since 2012.



### Seed quality testing **SNES**



### ORDER YOUR ANALYSE ONLINE

#### http://dsn.geves.info

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

For faster processing of your request, please order online



#### **SEND YOUR ORDER VIA POST**

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

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

## Biomolecular and biochemical testing BioGEVES



### ORDER YOUR ANALYSE ONLINE

biogeves.analyses@geves.fr



#### SEND YOUR ORDER VIA POST

• Send the sample to:

#### **Detection Unit**

#### **BioGEVES**

3 rue Henri Becquerel - CS 90024 49071 Beaucouzé Cedex FRANCE

#### Genotyping/Biochemistry Unit

BioGEVES - Le Magneraud

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

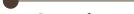
### Variety testing at the **SEV**



#### REQUEST A FIELD TEST DUS (Distinction Uniformity Stability)

#### celine.delarue@geves.fr

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



Your contacts at GEVES

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

Sector support Training courses, ILC, Audits

SNES Management



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**BioGEVES** 

SEV

Le Quilliec

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SNES Customer Services



Head of Physical Analysis Laboratory Aurélie Charrier: +33 (O)2 41 22 58 40

<ul><li>Radiography 2D/3D</li></ul>	Sherif Hamdy	02 41 22 58 30
<ul> <li>Purity, micro-cleaning</li> </ul>	Philippe Pannetier	02 41 22 58 43
<ul> <li>Water content</li> </ul>	Céline Herbert	02 41 22 58 30
<ul> <li>Botanic</li> </ul>	Diogo Tobolski	02 41 22 58 94



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<ul> <li>Floral, vegetable, woody, pulses and forest species</li> </ul>	Valérie Blouin	02 41 22 58 78
<ul> <li>Beetroot, vegetable, forage grasses</li> </ul>	Pierre Soufflet	02 41 22 58 82

Agricultural crop species Philippe Garreau 02 41 22 58 77



Head of Pathology Laboratory Valérie Grimault: +33 (0)2 41 22 58 50

 Seed health Isabelle Serandat 02 41 22 58 54 Laurent Guyot 02 41 22 58 59 Variety resistance Sophie Perrot 02 41 22 58 58 Seed treatment evaluation Geoffrey Orgeur 02 41 22 58 56

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Head of SEV Fabien Masson +33 (0)2 41 22 85 91

Contacts SEV:



SEV Customer Service Céline Delarue +33 (0)2 41 22 86 00 (field trials)

#### Supply of samples to the SNES



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

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

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

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

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

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

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

The analyses are not performed on GMO samples.

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



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

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

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

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

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

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

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



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

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

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

#### Supply of samples to the SNES

#### Mycology:

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

- Without superficial disinfection for most species. If the presence of saprophytes is to high the result will be "undetermined", a new test with superficial disinfection will be proposed.
- With superficial disinfection for species that are known to have saprophytes that can compromise the analysis.

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

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

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

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

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

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

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

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

#### Order an analysis



#### To SNES

For SNES or COFRAC certificate '	
	Price
By paper order form	
Handling of the request per submitted sample and issuing of a definitive SNES or COFRAC certificate, in French or English.	9.20
By internet on DSN website	
Handling of the request per submitted sample and issuing of a definitive SNES or COFRAC certificate, in French or English.	7.00
Specific handling	
Handling of the request per submitted sample sent in several packaging or weighing more than 2 kg requiring the preparation of a working sample, and issuing of a definitive SNES or COFRAC certificate, in French or English.	38.20
Supplementary certificates, specific presentation of results, priority	
Provisional certificate, in French or English.	4.00
Duplicate certificate, in French or English.	2.90
Summary table of results, or specific presentation of results.	30.00
Raw results on .csv file (request must be entered online on DSN website).	0.00
Priority processing, per sample.	18.00

<sup>1</sup>A SNES certificate is issued by default, except for COFRAC accredited tests (indicated by a \*) for which a COFRAC certificate will be issued.

For an international certificate	
	Price
By paper order form	
Handling of each submitted sample and issuing of an International Orange or Blue Certicate, in French or English, with priority being given to the related analyses. (EC-01 + SCLI-URBI + BU-ABIODE/BU-ABIBDE)	36.40
Supplementary certificates and request for changes	
Provisional international certificate, in French or English.	9.20
Duplicate international certificate, in French or English.	9.20
Adding additional certificates or modification of information on an international certificate (after checking the conformity with ISTA rules)	32 50

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rianding and results	
	Price
Handling	
Handling of the sample for treated seeds.	54.00
Results	
Duplicates analysis certificate except photography.	2.70
New edition of result certificate.	26.80
Specific presentation of results - Contact BioGeves.	1

### All Species •

SEED QUALITY				
Physiological quality				
		Size	Duration	Pric
Germination test				
Supplement for an analysis in soil or sand if the primary support of the species is "top of" or "pleated" paper - on 400 seeds.	GE-FG-SUP4	/	/	14.4
Supplement for an analysis in soil or sand if the primary support of the species is "top of" or	GE-FG-SUP2	/	/	7.5
"pleated" paper - on 200 seeds.				
Complementary determinations in addition to the germination test	CE EC DET	1 250	,	20 5
Detailed description of seedlings and seeds on 400 seeds.	GE-FG-DET	1 250 500	/	38.5
Detailed description of seedlings and seeds on 200 seeds.	GE-FG-DET2 GE-FG-PCPL	500	/	19.3
Percentage of a particular type of seedling.  Provision of the result of repetitions.	GE-FG-REP		//	12.4
·	GE-FG-REF	/	/	12.4
Additional testing time required		4.250	,	
Additional duration of 7 days for a germination test on 400 seeds.	GE-FG-7S4	1 250	/	15.0
Additional duration of 14 days for a germination test on 400 seeds.	GE-FG-14S4	500	/	30.2
Additional duration of 7 days for a germination test on 200 seeds.	GE-FG-7S2	500	/	7.6
Additional duration of 14 days for a germination test on 200 seeds.	GE-FG-14S2	500	/	15.1
Verification of species				
Verification of species after germination test.	GE-ENR	/_	/	8.7
Tetrazolium viability test - For results within a week, reception of seeds on Tuesday				
at the latest.				
Tetrazolium test on 400 seeds (excluding ornamental and fruit species).	GE-TZ-1	500	/	161.00
Tetrazolium test on 200 seeds (excluding ornamental and fruit species).	GE-TZ-2	300	/	107.0
Tetrazolium test on 100 seeds (excluding ornamental and fruit species).	GE-TZ-3	200	/	75.0
Energy				
Germination energy (intermediate counting; germination capacity supplement). The date of	GE-EG	500	/	18.4
counting for the energy varies according to the species.				
Vigour tests				
Cold-test on 400 seeds.	GE-CO	1 250	/	64.00
Cold-test on 200 seeds.	GE-CO2	500	/	41.00
Accelerated ageing of 200 seeds including germination capacity.	GE-VIEI-2	500	/	83.00
Controlled deterioration of 200 seeds including germination capacity.	GE-DET-1	500	/	83.00
Conductivity test on 200 seeds on ISTA species.	GE-CON-GLO	500	/	53.0
The moisture content of seeds should be between 10 and 14 %, sample must be send in a sealed				
foil sachet with the indication of the water content, otherwise it would be determined by us				
before the test and invoiced (see test TE-SN-01).	CE CON CUD NEW			F 04
Additional cost for a conductivity test on a treated seed sample.	GE-CON-SUP NEW	/	/	5.0
Treatment of seeds				
Treatment of seeds to be performed by SNES. Seeds do not undergo fungicide treatment before the germination test unless specifically requested (except for Beet).	GE-TRAIT	/	/	21.40
<u> </u>				
Substrate checks			,	
Determination of the water holding capacity of a substrate including moisture content.	GE-SUB-1	See p.7	/	85.00
Determination of the pH of a substrate.	GE-SUB-2	See p.7	/	55.00
Determination of the conductivity of a substrate.	GE-SUB-3	See p.7	/	55.0
Assessment of the innocuity of a substrate (determination of the % of seedlings intoxicated by	GE-SUB-4	See p.7	/	124.0
the substrate, on 2 sensitive species).  Viability determination of seeds in a soil or a substrate.	GE-SUB-5		Contr	act SNES
Validation of a new substrate for germination.	GE-SUB-6			act SNES
	GE-30B-0		Conta	act Sives
Automated germination kinetics by image analysis	05.01		C1-	CNEC
Germination kinetics by image analysis (average rate of germination, kinetic curve).	GE-CI			act SNES
Supply of detailed data on imbibition and early elongation of the root.	GE-CI-4			act SNES
Supply of seeds images during germination.	GE-CI-5		Conta	act SNES
,				
Seed health - Prior operations		Size	Duration	Price
	PA-MMS	Size	Duration /	Price 31.50

### All Species

Supplement fee for counting of colonies		Size	Duration	Price
•		Size	Duration	Drica
•				riice
1 pathogen in 30 000 seeds.	PA-BA-20	30 000	,	56.00
More than 1 pathogen in 5 000 seeds.	PA-BA-81	5 000		35.30
More than 1 pathogen in 30 000 seeds.	PA-BA-82	30 000		105.00
		30 000		
Mycology - See p.8 "Seed health"		Sino	Duration	Drice
Fusarium spp.		Size	Duration	Price
Identification of Fusarium species in addition to detection test.	PA-ID-FUS	/	19 days	245.00
Verticillium dahliae				
Agar method.	PA-ES-VERT	400	19 days	97.00
Supplement for spore counting, washing methods			,	
Counting by classes (0;1-10;11-100;>100).	PA-MY-DCLA	/_		59.00
Counting by unit.	PA-MY-DEN		/	96.00
Nematology				
		Size	Duration	Price
Heterodera group schachtii, Heterodera group goettingiana, Heterodera				
group avenae.				
Detection and identification on soil samples.	PA-NE-SOL1	300 g	30 days	175.00
Other tests				
		Size	Duration	Price
Resistance of fungal isolates to fungicides.	PA-AD-01			act SNES
Study of the efficacy of seed disinfection/treatment products on medium or by bioassay.	PA-AD-02			act SNES
Identification of pathogens isolated and provided on medium.	PA-AD-IP	2 boxes / isolates	19 days	46.00
Isolation of strains from symptoms.	PA-ISOLEM	/		46.00
Isolation of strains from seeds.	PA-ISOSEM			98.00
Identification of pathogens on plant material.	PA-DI-PEC		Cont	act SNES
Feasibility on a case-by-case basis. <b>Prices below are indicated for information. They will be charged depending on the observed symptoms.</b>				
Handling of the sample.	PA-DI-PEC	/	/	52.00
Identification based on symptoms.	PA-DI-MICR	/	/	90.00
Mycological identification after incubation.	PA-DI-MY	/		185.00
Bacteriological identification after incubation.	PA-DI-BA	/	/_	92.00
Confirmation by pathogenicity test.	PA-DI-PP	/_	/_	112.00
Virological identification by immunological test.	PA-DI-ELIS	/		199.00
Virological identification virologic by biotest.	PA-DI-IND	/		63.00
Analytical Profile Index (API). PCR.	PA-DI-API PA-DI-PCR			175.00 111.00
	ra-bi-ren			111.00
EVALUATION OF VARIETIES				
Determination of the identity and the varietal purity				
		Size	Duration	Price
Standard protocol.	SEV-CV			325.00
Specific study.	SEV-CV1		Con	itact SEV
Canatyping by molecular highest				
Genotyping by molecular biology		C!	Dunation	De! -
Variabel identify, and all	DI C D84 CCD C'D 4	Size	Duration Contact P	Price
Varietal comparison CSP	BI-G-BM-SSR-CID-1		Contact B	
Varietal comparison - SSR.	BI-G-BM-SSR-COMP BI-G-BM-SSR-PU-180		Contact B	
Genetic nurity analysis - SSR - 180 g	111-11-121VI-33N-FU-18U		Contact B	IOUE VES
Genetic purity analysis - SSR - 180 g.  Genetic purity analysis - SSR - 8 x 10 g			Contact P	inGF\/FC
Genetic purity analysis - SSR - 180 g.  Genetic purity analysis - SSR - 8 x 10 g.  Seed mixture detection.	BI-G-BM-SSR-PUR-10 BI-G-BM-SSR-PUR-40		Contact B	

### All Species

Genotyping by molecular biology				
weetend at the contraction	DI C DA4 CCD DUD 00	Size	Duration	Pri
Varietal description SCR	BI-G-BM-SSR-PUR-90		Contact B	
Varietal description - SSR.  DNA extraction.	BI-G-BM-SSR-DVAR BI-G-BM-EXT		Contact B Contact B	
/arietal identity control - SNP.	BI-G-BM-SNP-CID		Contact B	
Hybrid Conformity - SNP.	BI-G-BM-SNP-CONF		Contact B	
/arietal comparison - SNP.	BI-G-BM-SNP-COMP		Contact B	
Genetic purity analysis - SNP.	BI-G-BM-SNP-PUR		Contact B	
/arietal description - SNP.	BI-G-BM-SNP-DVAR		Contact B	
tandardization of DNA concentration & distribution in plate.	BI-G-CUST-GEN-3		Contact B	
Analysis of genetic diversity.	BI-G-CUST-GEN-2		Contact B	
Migration run - Capillary sequencer - plate.	BI-G-BM-RUN		Contact B	
DNA assay.	BI-G-BM-DOS		Contact B	
Development of genotyping method.	BI-G-METH		Contact B	
Customised genotyping.	BI-G-CUST		Contact B	ioGEV
Technological quality: biochemical tests				
		Size	Duration	Pri
PEC - custom analysis.	BI-B-CUST-DEV-SPEC		Contact B	ioGEV
MN - custom analysis.	BI-B-CUST-DEV-RMN		Contact B	ioGEV
PG - custom analysis.	BI-B-CUST-DEV-CPG		Contact B	ioGEV
IIRS - custom analysis.	BI-B-CUST-DEV-NIRS		Contact B	ioGEV
HPLC - custom analysis.	BI-B-CUST-DEV-HPLC		Contact B	ioGEV
annin content (assay by spectrophotometry).	BI-B-SPEC-TAN-GEN		Contact B	ioGEV
atty acid composition.	BI-B-CPG-AG-GEN		Contact B	ioGEV
Glucosinolate content (HPLC).	BI-B-HPLC-GLU-GEN		Contact B	ioGEV
Antitrypsic activity.	BI-B-SPECT-FAT-GEN		Contact B	ioGEV
Glucosinolate content (NIRS).	BI-B-NIRS-NGLS		Contact B	ioGEV
Spectrochlorophyll.	BI-B-SPEC-CHLO		Contact B	ioGEV
Customised biochemical molecule assays (NIRS model development, analytical chemistry).	BI-B-CUST		Contact B	ioGEV
Dil content (NMR).	BI-B-RMN-H		Contact B	ioGEV
Vater content (NMR).	BI-B-RMN-E		Contact B	ioGEV
Other tests				
		Size	Duration	Pr
NDV virus detection test by PCR.	BI-D-VIR-WDV		Contact B	ioGEV
PUBLICATIONS	_			
OBLIC/ATIONS				Pr
echnical sheet for analysis of specific purity and counting of all other seeds writy and determination of other seeds by number: methodology.		AP-N	1_1	31.
dentification data sheet of seeds and other impurities		Ar-IV	. 4	31
chinochloa crus-galli, Echinochloa colona, Panicum capillare, Panicum maximum, Setaria pun	nila, Setaria veridis.	AP-A-	01	31
vena fatua-Avena sativa.		AP-A-	-02	31
		GE-M-E	SP	7.
•				
iermination method of different species.  dentification data sheet of seeds and other impurities olygonaceae (Persicaria maculosa, Persicaria lapathifolia, Fallopia convolvulus, Polygonum a	viculare, Rumex sp.,	AP-A-	-03	31
Germination method of different species.  dentification data sheet of seeds and other impurities  Polygonaceae (Persicaria maculosa, Persicaria lapathifolia, Fallopia convolvulus, Polygonum a  Rumex acetosella, Rumex maritimus).	viculare, Rumex sp.,			
Germination analysis method sheet Germination method of different species.  dentification data sheet of seeds and other impurities Polygonaceae (Persicaria maculosa, Persicaria lapathifolia, Fallopia convolvulus, Polygonum ar Rumex acetosella, Rumex maritimus). Chenopodium sp., Atriplex sp., Amaranthus sp., Reseda sp., Myosotis sp. Asteraceae (Anthemis arvensis, Glebionis segetum, Chicorium sp., Tripleurospermum inodorum spchioides, Lapsana communis, Lactuca sativa, Sonchus spp., Cirsium arvense, Cirsium vulgare.	n, Helminthotheca	AP-A- AP-A-	04	31. 31.
Germination method of different species.  dentification data sheet of seeds and other impurities  Polygonaceae (Persicaria maculosa, Persicaria lapathifolia, Fallopia convolvulus, Polygonum a  Rumex acetosella, Rumex maritimus).  Chenopodium sp., Atriplex sp., Amaranthus sp., Reseda sp., Myosotis sp.	n, Helminthotheca	AP-A-	.04 .06	31.

### All Species

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

SEED QUALITY				
Physical quality				
		Size	Duration	Price
Calibration - Provide seeds in sealed foil sachets				
ISTA method (Denker device): inferior or equal to 6 grills.	MN-DK-CAL1			39.60
ISTA method (Denker device): superior or equal to 6 grills.	MN-DK-CAL2	/	/	51.00
Thousand-seed weight (on purity test performed by SNES)				
Thousand-seed weight on pure seeds.	MMS-01	/	/	31.50
Purity analysis test	5111040	1074	,	
Purity - Beets, Chicory.  Percentage of a specific type of other seeds. Specify the search to be performed.	PU-IS-18 PU-CONS1	ISTA weight	/	31.70 8.60
	FO-CON31	1		8.00
Purity analysis test  Percentage of a specific type of inert materials. Specify the search to be performed.	PU-CONS2	/	/	8.60
Purity analysis test	. 0 00.102			0.00
Supplement for purity analysis if received as raw seeds or a very dirty sample.	PU-LB-SUP	NEW /	/	30.00
Counting of all other seeds		,	,	
Full counting - Beets, Chicory.	SP-IS-17	ISTA weight	/	131.00
Counting of other seeds on purity weight. Indication of the number of other seeds in the	PU-SP-01	/	/	12.80
specific purity test.				
Limited counting of all other seeds				
Searching of 1 to 4 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be</b>	SP-LI-01	ISTA weight	/	61.00
searched.				
Full counting of all other seeds  Southing of Eta & Species (system for Orchanologopa). Indicate the name of the greeies to be	CD 11 03	ICTA woight	,	07.00
Searching of 5 to 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be searched.</b>	SP-LI-02	ISTA weight	/	97.00
Searching of more than 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the</b>	SP-LI-20		Cont	act SNES
species to be searched.				
Full counting of all other seeds				
Searching of <i>Orobanche</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on	SP-ORO	ISTA weight	/	71.00
a separate, sealed, submitted subsample.				
Full counting of all other seeds Searching of Striga sp. Only on UNTREATED and UNCOATED seeds. Analyse performed on a	SP-STRIGA	ISTA woight	,	71.00
separate, sealed, submitted subsample.	3F-31 RIGA	ISTA weight	/	71.00
Searching of <i>Orobanche</i> sp. and <i>Striga</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse	SP-ORO-STR	ISTA weight	/	105.00
performed on a separate, sealed, submitted subsample.				
Tests on coated seeds				
Purity of coated seeds.	PU-IS-21	2 500	/	32.70
Tests on coated seeds				
Pelleting material removal and full counting on 2 500 coated seeds. <b>Only on UNTREATED</b> seeds.	SP-ENR2500	2 500	/	97.00
Pelleting material removal and full counting on 7 500 coated seeds. <b>Only on UNTREATED</b>	SP-ENR-TOT	7 500	/	294.00
seeds.			,	
Pelleting material removal and limited counting of other seeds from 1 to 3 botanical species, on	SP-ENR-LIM	7 500	/	230.00
7 500 coated seeds. Only on UNTREATED seeds.				
Moisture content - Provide seeds in sealed foil sachets from which as much air as				
possible has been extracted  Oven method.	TE-SN-01	ISTA woight	,	19.70
	1E-3N-01	ISTA weight	/	15.70
Identification of individual seeds  Visual identification by species.	ID-IS-01	/	/	33.00
visual identification by species.	10 13 01	,		33.00
Physiological quality				
		Size	Duration	Price
Germination test on 400 seeds				
Beets (after washing and treatment).	GE-FG-03-4	1 250	/	67.00
Beets (pelleted seeds).	GE-FG-034E	1 250		51.00
Chicorys.	GE-FG-18-4	1 250	/	60.00
Germination test on 200 seeds				
Beets (after washing and treatment).	GE-FG-03-2	500	/	52.00
Beets (pelleted seeds).	GE-FG-032E	500	/	35.70

		Size	Duration	Price
Germination test on 200 seeds				
Chicorys.	GE-FG-18-2	500	/	48.30
Germination test on 100 seeds				
Beets (after washing and treatment).	GE-FG-03-1	500		33.3
Beets (pelleted seeds).	GE-FG-031E	500		25.6
Chicorys.	GE-FG-18-1	500	/	29.0
Cold test germination on 400 seeds				
Beets (after washing and treatment).	GE-EGFG-B4	1 250	/_	96.0
Chicorys.	GE-EGFG-4	1 250	/	85.0
Cold test germination on 200 seeds			,	
Beets (after washing and treatment).	GE-EGFG-B2	500		58.0
Chicorys.	GE-EGFG-2	500		50.0
Verification of species				
/erification of species after germination test.	GE-ENR	/_	/_	8.7
Additional determinations in addition to the germination test on 400 seeds				
Percentage of monogerm seed - Monogerms seeds.	GE-FG-MONO			12.6
Percentage of monogerm seed - Multigerms seeds.	GE-FGMONO1			27.6
Germination based on full seeds.	GE-FG-AMAN	/	/_	9.3
Additional determinations in addition to the germination test on 200 seeds				
Percentage of monogerm seed - Monogerms seeds.	GE-FGMON2		/	7.6
Percentage of monogerm seed - Multigerms seeds.	GE-FGMON21	/		16.4
Bacteriology - Uncoated seeds only				
		Size	Duration	Pri
iwiss chard				
Pseudomonas syringae pv. aptata  Agar method + pathogenicity test in case of suspect colonies.	PA-BA-119	30 000	30 days	241.0
Chard	1 A-DA-113	30 000	Jo days	241.0
Kanthomonas campestris pv. campestris				
Agar method + pathogenicity test in case of suspect colonies (Anses BHs/99/05).	PA-BA-117	30 000	37 days	214.0
agai method i pathogementy test in case of suspect colonies (Alises Bris/55/65).	18 08 117	30 000	37 day3	214.0
Mycology - See p.8 "Seed health"				
		Size	Duration	Prio
Beet Pleospora bjoerlingii (Phoma betae), Colletotrichum dematium, Fusarium				
pxysporum, Fusarium equiseti, Fusarium (other sections), Verticilium sp.				
Agar method.	PA-ES-BET	400	19 days	97.0
Peronospora farinosa (downy mildew)			25 44,5	
seed wash method. UNTREATED seeds only.	PA-MI-BET	500	15 days	94.0
·	TA WII DET	300	15 days	
Cercospora beticola (leaf spot)  Geed wash method. UNTREATED seeds only.	PA-CE-BET	500	1E days	04.0
·	PA-CE-DET	300	15 days	94.0
Jromyces beticola (rust)	DA DO DET	F00	1 F. alassa	04.6
eed wash method. UNTREATED seeds only.	PA-RO-BET	500	15 days	94.0
Ramularia beticola (leaf spot)				
eed wash method. UNTREATED seeds only.	PA-RAM-BET	500	15 days	94.0
Chicory				
Alternaria cichorii, Fusarium (all sections), Botrytis cinerea				
gar method.	PA-ES-CHI	400	19 days	97.0
Nematology				
		Size	Duration	Pric
Heterodera group schachtii, Heterodera group goettingiana, Heterodera				
roup avenae.				
group avenae. Detection and identification on soil samples.	PA-NE-SOL1	300 g	30 days	175.0

Virology - Uncoated seeds only				
Beet		Size	Duration	Pric
Beet necrotic yelllow vein virus (BNYVV) <sup>40</sup>				
ELISA.	PA-VI-41	2 000	16 days	228.0
Tomato black ring virus (TBRV)				
ELISA.	PA-VI-37	2 000	16 days	161.0
Beet mosaic virus (BtMV)				
ELISA.	PA-VI-73		Conta	act SNE
Tobacco rattle virus (TRV)				
ELISA.	PA-VI-82		Conta	act SNE
EVALUATION OF VARIETIES				
Varietal resistance			_	_
Valletal lesistatice		Size	Duration	Pric
Beets		3120	Duration	
Heterodera schachtii				
GEVES protocol.	PA-R-BET	75	/	855.0
Aphanomyces cochlioides				
Official protocol.	PA-R-BET-1		Conta	act SNE
Rhizoctonia solani				
Evaluation of agressivity of an isolate.	PA-R-BET-2		Conta	act SNE
Potato				
Globodera pallida <sup>40</sup> Counting of eggs and larvae for resistant varieties. Directive 2007/33/CE.	PA-R-POM-1	8	/	793.
Foot test (miniaturised test: 4 tubercules).	PA-R-POM-5		Conta	act SNE
Globodera rostochiensis <sup>40</sup>				
Counting of eggs and larvae for resistant varieties. Directive 2007/33/CE.	PA-R-POM-3	8	/	764.0
Foot test (miniaturised test: 4 tubercules).	PA-R-POM-6		Conta	act SNE
Different prices outside test periods. Contact SNES for information on the periods according	to the species.			
Technological quality: biochemicals tests				
		Size	Duration	Pri
Chicory				
Asparagin content.	BI-B-SPEC-ASN		Contact B	BioGEVE
Beet Betanine (red of beetroot) assay by spectrophotometry.	BI-B-SPEC-BET		Contact B	BioGEVE
Field test by SEV				
DUS testing. Guess head		CEV DUC B	r <b>T</b> C	Pri
DUS testing - <b>Sugar beet.</b> DUS testing - <b>Forage beet.</b>		SEV-DHS-BI SEV-DHS-BI		1035. 1035.
DUS testing - Chicory.		SEV-DHS-		1035.
Resistance test for leaf blight and tuber blight for <b>Potato</b> . Contact aurelie.mailliard@geves.fr		SEV-PDT-I		1390.
			-	
PUBLICATIONS				Dri
				Pri
Germination analysis technical sheet				
		GE-T-B	BET	31.
Evaluation of <b>Beet</b> seedlings.		GE-T-B	BET	31.2
Germination analysis technical sheet Evaluation of Beet seedlings. Technical sheet for analysis of specific purity and counting of all other seeds Beta vulgaris.		GE-T-B		31.3
Evaluation of Beet seedlings.  Technical sheet for analysis of specific purity and counting of all other seeds				

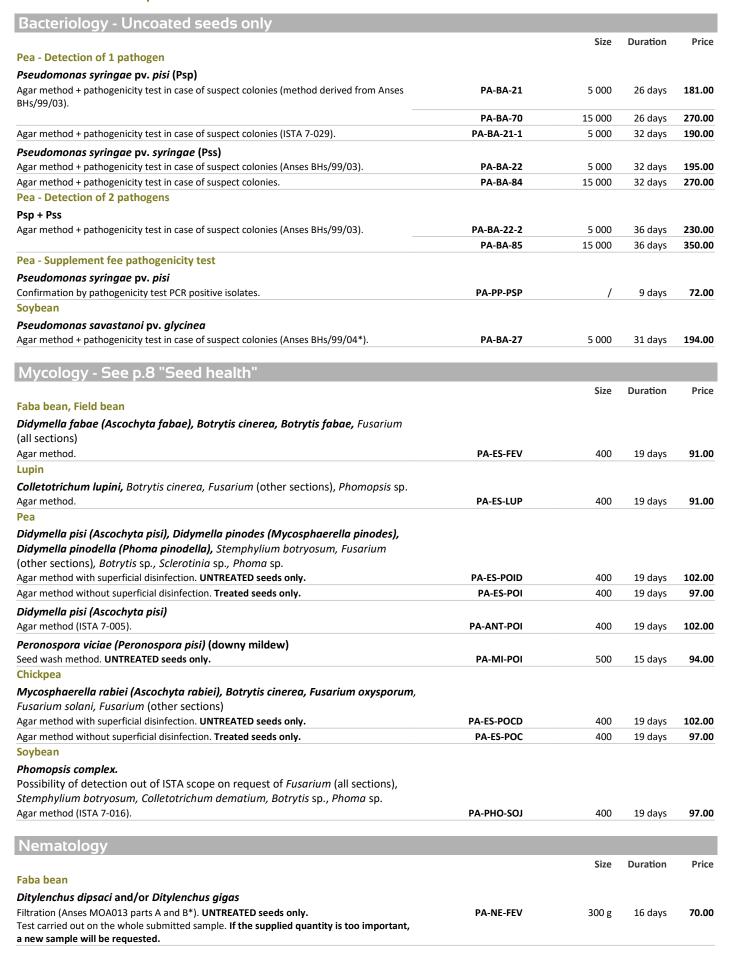
echioïdes, Lapsana communis, Lactuca sativa, Sonchus spp., Cirsium arvense, Cirsium vulgare, Centaurea cyanus).

Price

**Collection of seeds - Contact SNES** 

Weed's identification for  $\textit{Beta vulgaris}\xspace$  analysis. APCS-BET-V

SEED QUALITY				
Physical quality				
		Size	Duration	Price
Thousand-seed weight (on purity test performed by SNES)	NANAS OA	,	,	24 50
Thousand-seed weight on pure seeds.	MMS-01	/	/	31.50
Purity analysis test Purity - Field bean, Faba bean, Lupin, Pea.	PU-IS-02	ISTA weight	/	24.60
Percentage of a specific type of other seeds. <b>Specify the search to be performed.</b>	PU-CONS1	/		8.60
Purity analysis test				
Percentage of a specific type of inert materials. Specify the search to be performed.	PU-CONS2		/	8.60
Purity analysis test	DILLE CUD NEW	,	,	20.00
Supplement for purity analysis if received as raw seeds or a very dirty sample.  Counting of all other seeds	PU-LB-SUP NEW	/	/	30.00
Full counting - Field bean, Faba bean, Lupin, Pea.	SP-IS-02	ISTA weight	/	24.60
Counting of all other seeds				
Counting of other seeds on purity weight. Indication of the number of other seeds in the specific purity test.	PU-SP-01	/	/	12.80
Limited counting of all other seeds  Searching of 1 to 4 species (except for <i>Orobanchaceae</i> ). Indicate the name of the species to be searched.	SP-LI-01	ISTA weight	/	61.00
Full counting of all other seeds				
Searching of 5 to 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be searched.</b>	SP-LI-02	ISTA weight	/	97.00
Searching of more than 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be searched.</b>	SP-LI-20		Conta	act SNES
Searching of Avena fatua - Pea.	SP-AF-3KG2	3 kg	/	64.00
<b>Full counting of all other seeds</b> Searching of <i>Orobanche</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on a separate, sealed, submitted subsample.	SP-ORO	ISTA weight	/	71.00
Full counting of all other seeds				
Searching of <i>Striga</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on a separate, sealed, submitted subsample.	SP-STRIGA	ISTA weight	/	71.00
Searching of <i>Orobanche</i> sp. and <i>Striga</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on a separate, sealed, submitted subsample.	SP-ORO-STR	ISTA weight	/	105.00
Moisture content - Provide seeds in sealed foil sachets from which as much air as				
possible has been extracted  Oven method.	TE CN 01	ICTA waight	,	10.70
Moisture content - Provide seeds in sealed foil sachets from which as much air as	TE-SN-01	ISTA weight	/	19.70
possible has been extracted				
Supplement for moisture content test requiring pre-drying.	TE-SN-03		/	12.80
Determination of bitterness				
Bitter on Lupin.	AMER-LUP1	400	/	64.00
Identification of individual seeds  Visual identification by species.	ID-IS-01	/	/	33.00
		,	,	
Physiological quality		61	Described	8.4.
Cormination test on 200 coods		Size	Duration	Price
Germination test on 200 seeds Faba bean, Lupin, Pea, Soybean.	GE-FG-02-2	500	/	42.30
Germination test on 400 seeds			,	
Faba bean, Lupin, Pea, Soybean.	GE-FG-02-4	1 250	/	51.00
Vigour tests				
Conductivity test on 200 seeds on ISTA species.  The moisture content of seeds should be between 10 and 14 %, sample must be send in a sealed foil sachet with the indication of the water content, otherwise it would be determined by us before the test and invoiced (see test TE-SN-01).	GE-CON-GLO	500	/	53.00
Additional cost for a conductivity test on a treated seed sample.	GE-CON-SUP NEW	/	/	5.00
Accelerated ageing of 200 seeds including germination capacity.	GE-VIEI-2	500	/	83.00



		Size	Duration	Price
Faba bean				
Ditylenchus dipsaci and/or Ditylenchus gigas				
Detection on plants. Filtration (Anses MOA013 parts A and B).	PA-NE-PLAF	/	16 days	78.00
Pea				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B*). <b>UNTREATED seeds only.</b> Test carried out on the whole submitted sample. <b>If the supplied quantity is too important, a new sample will be requested.</b>	PA-NE-POIS	70 g	16 days	70.00

Virology - Uncoated seeds only				
		Size	Duration	Price
Pea				
Tomato black ring virus (TBRV)				
ELISA.	PA-VI-37	2 000	16 days	160.00
Pea early browning virus (PEBV)				
ELISA (ISTA 7-024).	PA-VI-31	2 000	16 days	160.00
Pea enation mosaic virus (PEMV)				
ELISA.	PA-VI-57	2 000	16 days	230.00
Pea seed borne mosaic virus (PSbMV)				
ELISA (ISTA 7-024).	PA-VI-11	2 000	16 days	160.00
Bean yellow mosaic virus (BYMV)				
ELISA.	PA-VI-60		Cont	act SNES
Bean leaf roll virus (BLRV)				
ELISA.	PA-VI-67		Cont	act SNES
Southern bean mosaic virus (SBMV)				
ELISA.	PA-VI-88		Cont	act SNES
Broad bean true mosaic virus (BBTMV)				
ELISA.	PA-VI-50		Cont	act SNES
Soybean				
Soybean mosaic virus (SMV)				
ELISA.	PA-VI-13		Cont	act SNES

EVALUATION OF VARIETIES				
Varietal resistance				
		Size	Duration	Price
Pea				
Ascochyta pisi race C				
Official protocol.	PA-R-POI-1	30		95.00
Fusarium oxysporum f. sp. pisi race 1				
Official protocol.	PA-R-POI-2	30		106.00
BYMV (Bean yellow mosaic virus)				
Official protocol.	PA-R-POI-3	30	/	98.00
PEMV (Pea enation mosaic virus)				
Official protocol.	PA-R-POI-4	30		98.00
Erysiphe pisi				
Official protocol.	PA-R-POI-5	30	/	157.00

Different prices outside test periods. Contact SNES for tests outside periods (March - April)

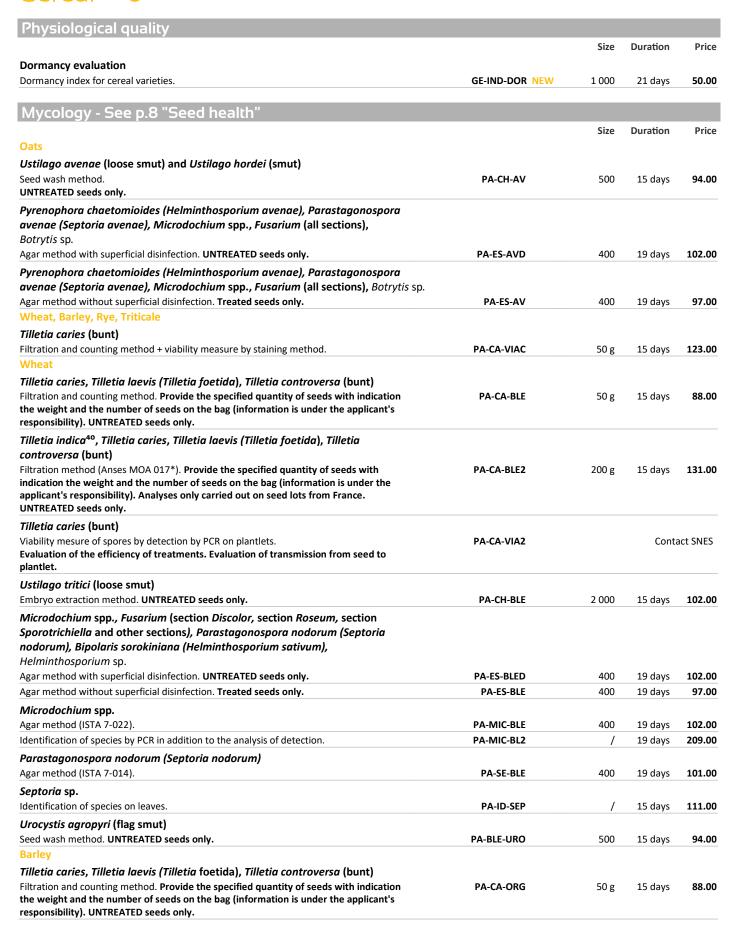
Genotyping by protein profiling		
		Size Duration Price
Soybean		
Varietal comparison by isoenzyme electrophoresis.	BI-G-EL-COMP-S	Contact BioGEVES
Purity control by iso-enzymatic electrophoresis - 100 g.	BI-G-EL-PUR-S-100G	Contact BioGEVES
Description of a variety for 6 loci on 20 seeds.	BI-G-EL-DVAR-S	Contact BioGEVES

·				
Genotyping by protein profiling				
		Size	Duration	Price
Soybean				
Purity test of a batch for 6 loci out of 200 seedlings.	BI-G-EL-PUR-S-200G		Contact B	ioGEVES
Genotyping by molecular biology				
		Size	Duration	Price
Pea				
Varietal purity analysis.	BI-G-BM-SSR-PUR-90		Contact E	
Varietal identity control.	BI-G-BM-SSR-CID-1		Contact E	ioGEVES
Soybean Variable audit and air	DI C DAA CCD DUD OO		C	:- CEVEC
Varietal junity analysis.	BI-G-BM-SSR-PUR-90 BI-G-BM-SSR-CID		Contact E	
Varietal identity control.	DI-O-DIVI-33N-CID		Contact	OIUGEVES
Technological quality : biochemicals tests				
recimological quality . Diochemicals tests		C:	Duration	Duine
Field Been Bee		Size	Duration	Price
Field Bean, Pea	BI-B-NIRS-P		Contact E	ioGEVES
Protein content (NIRS).	BI-B-NIKS-P		Contact E	
Antitrypsic factors (assay by spectrophotometry).	BI-B-SPEC-TAN		Contact E	
Tannin content (assay by spectrophotometry).  Vicine and convicine content (faba) by high performance liquid chromatography (HPLC).	BI-B-HPLC-VCCV		Contact E	
Soybean	DI-D-HPLC-VCCV		Contact	IUGEVES
Protein content (NIRS).	BI-B-NIRS-P		Contact E	inGEVES
Antitrypsic factors (assay by spectrophotometry).	BI-B-SPEC-FAT		Contact E	
Thinks yes crucios (ussay by speed opinotomed y).	DI D 31 20 17(1		Contact L	1002 123
Detection, identification and quatification of GMOs				
Detection, recruired and qualification of civios		Size	Duration	Price
Soybean		3.20	Daration	11100
Detection of the adventitious presence of GMOs in raw products (seeds, grains). List of	BI-D-OGM1		Contact E	ioGEVES
methods available on request.				
Identification and quantification of GMO events. List of methods available on request.	BI-D-OGM3		Contact E	ioGEVES
Field test by SEV				
				Price
DUS testing - Field bean, Lupin.		SEV-DHS-FEVL	UP	1035.00
DUS testing - Lentil.		SEV-DHS-L	.EN	1265.00
DUS testing - <b>Spring peas</b> .		SEV-DHS-PO	OIP	1265.00
DUS testing - Winter peas.		SEV-DHS-PC	OIH	1265.00
DUS testing - Chickpea.		SEV-DHS-PO	OIC	1265.00
DUS testing - Soybean.		SEV-DHS-S	SO1	1155.00
PUBLICATIONS				
1 OBLICATIONS				n :
				Price
Method sheet				
Vigour testing – Conductivity - <b>Pea.</b>		VIG-2	-M	7.60
Germination analysis technical sheet				
Evaluation of <b>Pea</b> seedlings.		GE-T-P	01	31.20
Evaluation of <b>Faba</b> seedlings.		GE-T-F	EV	31.20
Technical sheet for analysis of specific purity and counting of all other seeds				
Pisum sativum, Vicia faba.		AP-0	C-8	31.20
Cicer arietinum.		AP-C-	12	31.20
Collection of seeds - Contact SNES				
Weed's identification for <i>Pisum sativum</i> and <i>Vicia faba</i> analysis.		APCS-PIS	S-S	/

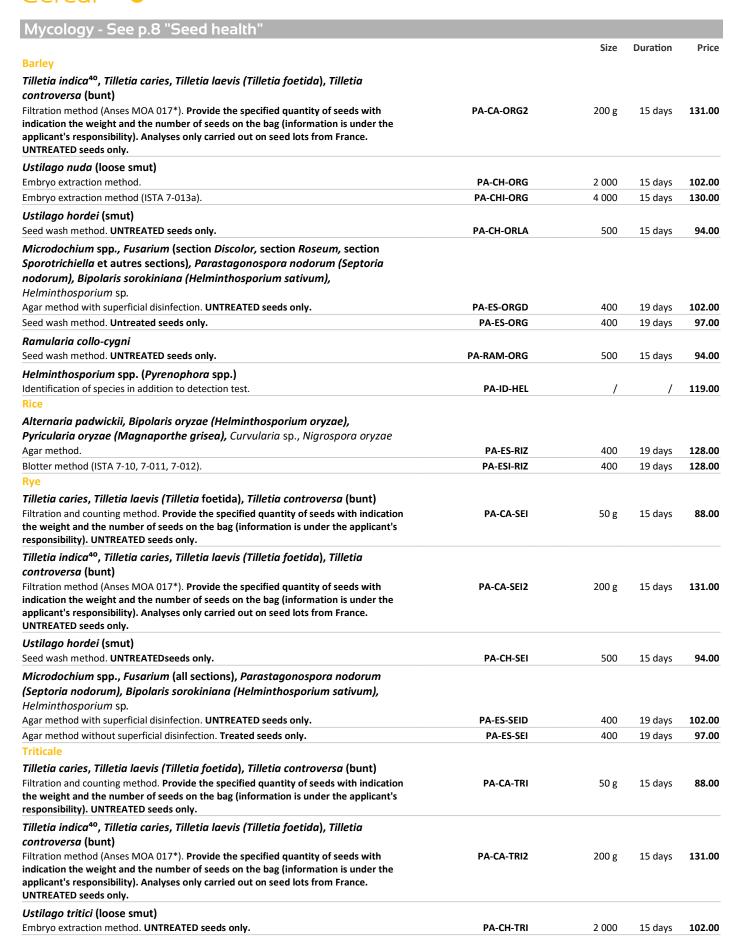
#### Cereal •

SEED QUALITY				
Physical quality				
The constant and contable (on possible test confermed by CNFC)		Size	Duration	Price
Thousand-seed weight (on purity test performed by SNES) Thousand-seed weight on pure seeds.	MMS-01	1	/	31.50
Purity analysis test				
Purity - Wheat, Spelt, Barley, Oat, Rice, Triticale, Rye, Buckwheat.	PU-IS-01	ISTA weight		60.00
Percentage of a specific type of other seeds. Specify the search to be performed.	PU-CONS1	/	/	8.60
Purity analysis test Percentage of a specific type of inert materials. Specify the search to be performed.	PU-CONS2	/	/	8.60
Purity analysis test				
Supplement for purity analysis if received as raw seeds or a very dirty sample.	PU-LB-SUP NE	w /		30.00
Counting of all other seeds Full counting - Wheat, Spelt, Barley, Oat, Rice, Triticale, Rye, Buckwheat.	SP-IS-01	ISTA weight	/	132.00
Counting of all other seeds	0. 10 02	1017111018110	,	
	SP-CER-R1	500 g		110.00
Counting of all other seeds  Counting of other seeds on purity weight. Indication of the number of other seeds in the specific purity test.	PU-SP-01	/	/	12.80
Limited counting of all other seeds				
Searching of 1 to 4 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be searched.</b>	SP-LI-01	ISTA weight	/	61.00
Full counting of all other seeds Searching of 5 to 8 species (except for <i>Orobanchaceae</i> ). Indicate the name of the species to be searched.	SP-LI-02	ISTA weight	/	97.00
Searching of more than 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be searched.</b>	SP-LI-20		Cont	act SNES
Searching of Avena fatua - Wheat, Spelt, Triticale, Rye, Barley, Rice.	SP-AF-3KG1	3 kg	/	186.00
Searching of Avena fatua - Oat.	SP-AF-3KG5	3 kg	1	335.00
<b>Full counting of all other seeds</b> Searching of <i>Orobanche</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on a separate, sealed, submitted subsample.	SP-ORO	ISTA weight	/	71.00
<b>Full counting of all other seeds</b> Searching of <i>Striga</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on a separate, sealed, submitted subsample.	SP-STRIGA	ISTA weight	/	71.00
Searching of <i>Orobanche</i> sp. and <i>Striga</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on a separate, sealed, submitted subsample.	SP-ORO-STR	ISTA weight	/	105.00
Moisture content - Provide seeds in sealed foil sachets from which as much air as possible has been extracted				
Oven method.	TE-SN-01	ISTA weight	/	19.70
Moisture content - Provide seeds in sealed foil sachets from which as much air as				
possible has been extracted Supplement for moisture content test requiring pre-drying.	TE-SN-03	1	/	12.80
Determination of bitterness	00			
Bitter on <b>Quinoa</b> .	AMER-QUI	400	/	64.00
Identification of individual seeds				
Visual identification by species.	ID-IS-01	/	/	33.00
Physiological quality				
		Size	Duration	Price
Germination test on 400 seeds				
Wheat, Spelt, Barley, Oats, Rice, Triticale, Rye, Buckwheat.	GE-FG-01-4	1 250	/	47.00
Germination test on 200 seeds		=		
Wheat, Spelt, Barley, Oats, Rice, Triticale, Rye, Buckwheat.	GE-FG-01-2	500	/	38.70
Vigour test	GE CO CE 4	1 350	,	64.00
Cold Test on 400 seeds.  Cold Test Cereals (200 seeds).	GE-CO-CE-4 GE-CO-CE-2	1 250 500		64.00 41.00
Accelerated ageing of 200 seeds including germination capacity.	GE-VIEI-2	500	/	83.00
	QL 1/L! £	300		55.00

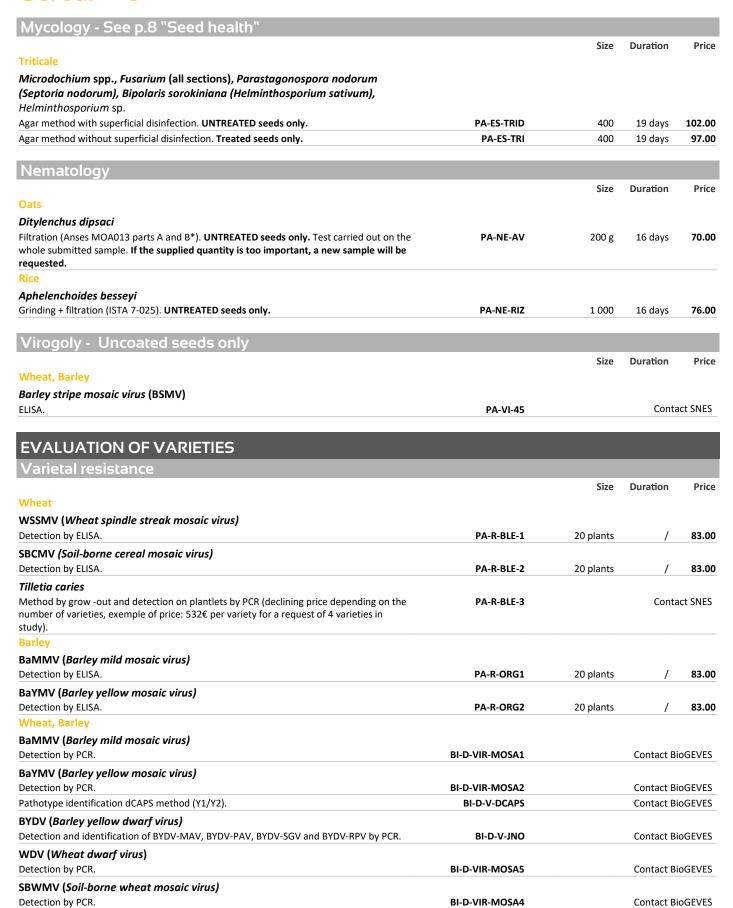
#### Cereal



#### Cereal







Different prices outside test periods. Contact SNES for tests outside periods (March - April)

#### Cereal

Varietal resistance				
		Size	Duration	Price
Wheat, Barley				
SBCMV (Soil-borne cereal mosaic virus)				
Detection by PCR.	BI-D-VIR-MOSA3		Contact Bi	oGEVES
WSSMV (Wheat spindle streak mosaic virus)				
Detection by PCR.	BI-D-VIR-MOSA6		Contact Bi	oGEVES
Different prices outside test periods. Contact SNES for tests outside periods (March - April)				
Genotyping by protein profiling				
		Size	Duration	Price
Durum Wheat				
Research and characterisation of LMW1 and LMW2 bands for the varieties of <b>Durum wheat</b> ,	BI-G-EL-LMW		Contact B	ioGEVES
1 variety x 5.				
Constrains by molecular history				
Genotyping by molecular biology		61	Danie III	D. C.
Durum Wheat, Bread Wheat, Barley, Triticale		Size	Duration	Price
Varietal purity analysis.	BI-G-BM-SSR-PUR-90		Contact B	ioGEVES
Seed mixture detection.	BI-G-BM-SSR-PUR-40		Contact B	
Durum Wheat, Barley, Rice, Triticale	DI C DIN SSR I GR 40		Contact B	
Varietal identity control.	BI-G-BM-SSR-CID-1		Contact B	ioGEVES
Bread Wheat				
Varietal identification (french collection, organic, recommanded varieties for milling).	BI-G-BM-SSR-CID-2		Contact B	ioGEVES
Varietal identity control for milling.	BI-G-BM-SSR-CID-3		Contact B	ioGEVES
Varietal identity control for organic wheat.	BI-G-BM-SSR-CID-4		Contact B	ioGEVES
Malting Barley				
Varietal identity control for brewery.	BI-G-BM-SSR-CID-5		Contact B	IOGEVES
Technological quality : biochemicals tests				
reclinological quality . Diocriefficals tests		Size	Duration	Price
Durum Wheat		3126	Duration	FIICE
Protein content (NIRS).	BI-B-NIRS-P		Contact B	ioGEVES
Other tests				
		Size	Duration	Price
Dormancy index for cereal varieties.	GE-IND-DOR	NEW 1 000	21 days	50.00
Barley				
Morphological control of <b>Barley</b> seeds (character of racilla and crease).	SEV-AUT-GROR	1 000	/	42.40
Field test by SEV				
				Price
DUS testing - Winter oat.		SEV-DHS-	AVH	1035.00
DUS testing - Spring oat.		SEV-DHS-		1035.00
DUS testing - Winter wheat.		SEV-DHS-		1390.00
DUS testing - Spring wheat.		SEV-DHS-		1390.00
DUS testing - Winter barley.		SEV-DHS-		1390.00
DUS testing - Spring barley.  DUS testing - Durum wheat.		SEV-DHS- SEV-DHS		1390.00
DUS testing - Triticale.		SEV-DHS		1390.00
DUS testing - Rice.		SEV-DHS		1390.00

#### Cereal •

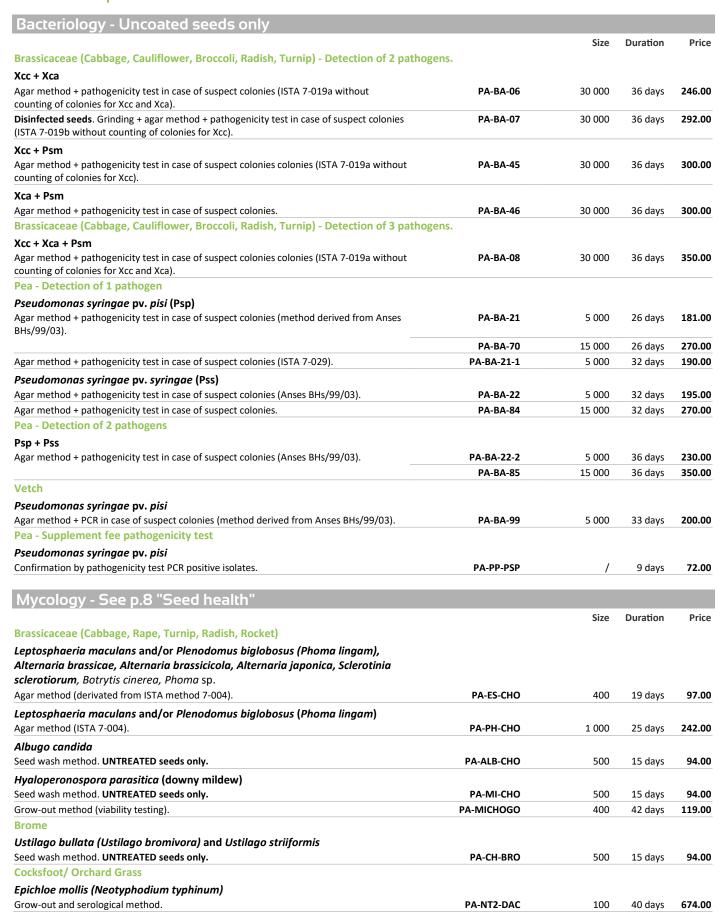


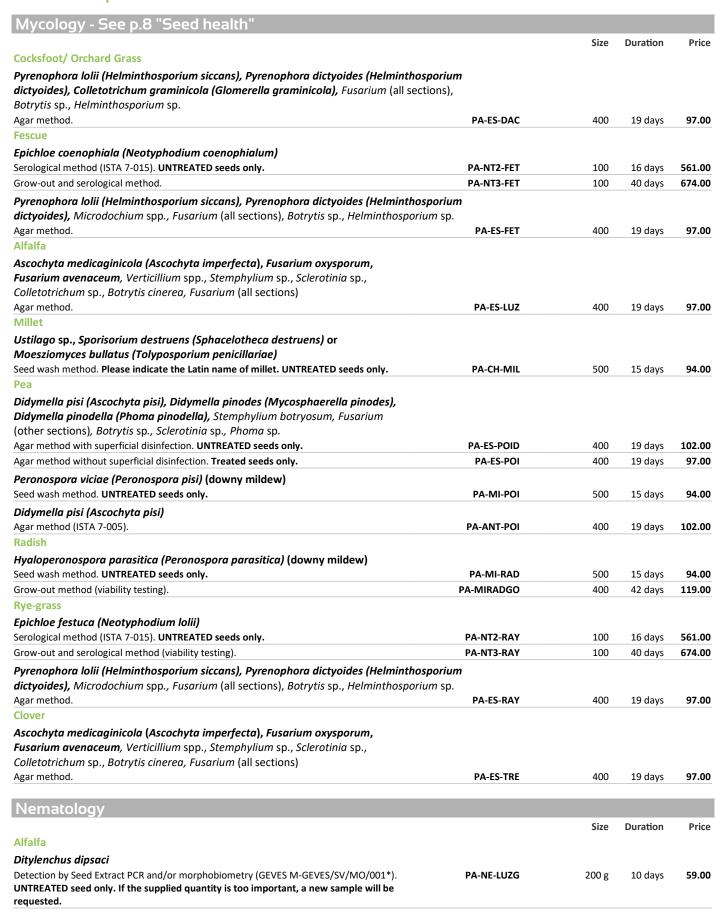
		Price
Germination analysis technical sheet		
Evaluation of <b>Cereals</b> seedlings.	GE-T-CER	31.20
Identification data sheet of seeds and other impurities		
Cereals (Avena sativa, Triticum aestivum, Triticum durum, Hordeum vulgare, xSecale cereale).	AP-C-5	31.20
Sorghum bicolor.	AP-C-17	31.20
Avena fatua-Avena sativa.	AP-A-02	31.20
Collection of seeds - Contact SNES		
Weed's identification for <b>Cereals</b> analysis.	APCS-CER	1

SEED QUALITY				
Physical quality		61-	Duration	6.1
Thousand-seed weight (on purity test performed by SNES)		Size	Duration	Pri
Thousand-seed weight on pure seeds.	MMS-01	/	/	31.
<u> </u>	1411413-01	/		J1.
Preparation of pure seeds for germination test	PU-PR-GRA	ISTA woight	1	30.
All forage grasses species.	PU-PR-GRA	ISTA weight	/	30.
Purity analysis test	DI 10 02	ICTA	,	
Purity - Field bean, Faba bean, Lupin, Pea.	PU-IS-02	ISTA weight		24.
Purity leguminous - Bermuda grass, Fenugreek, Birds-foot trefoil, Alfalfa, Black Medick, Phacelia, Plantain, Sainfoin, Clover, Vetch.	PU-IS-FOU1	ISTA weight		45.
Purity grasses - <b>Festulolium, Tall fescue, Sweet vernal grass, Tall oat grass, Bahia grass,</b> Harding grass, Rye grass, Meadow foxtail.	PU-IS-FOU2	ISTA weight	/	70.
Purity grasses - Bent-grass, Yellow oatgrass, Brome, Tufted hair grass, Cocksfoot, Sheep fescue, Red fescue, Meadow fescue, Meadow grass.	PU-IS-FOU3	ISTA weight	/	81.
Percentage of a specific type of other seeds. Specify the search to be performed.	PU-CONS1	/	/	8.
Purity analysis test				
Percentage of a specific type of inert materials. Specify the search to be performed.	PU-CONS2	/	/	8.
Purity analysis test			, , , , , , , , , , , , , , , , , , ,	<b>J.</b>
Supplement for purity analysis if received as raw seeds or a very dirty sample.	PU-LB-SUP NE	w /	/	30.
Counting of all other seeds				
Full counting - Field bean, Faba bean, Lupin, Pea.	SP-IS-02	ISTA weight		24.
Counting of all other seeds				
Full counting leguminous - Alfalfa, Black Medick, Phacelia, Narrow-leaf plantain, Clover.	SP-IS-LEG1	ISTA weight	/	141.
Full counting leguminous - Fenugreek, Birds-foot trefoil, Sainfoin, Vetch.	SP-IS-LEG2	ISTA weight	/	214.
Counting of all other seeds				
Full counting grasses - Festulolium, Tall fescue, Sweet vernal grass, Tall oat grass, Bahia grass, Harding grass, Rye grass, Meadow foxtail.	SP-IS-GRA1	ISTA weight	/	300
Full counting grasses - Bent-grass, Yellow oatgrass, Brome, Tufted hair grass, Cocksfoot,	SP-IS-GRA2	ISTA weight		192.
Sheep fescue, Red fescue, Meadow fescue, Meadow grass.	3F-I3-GRAZ	131A Weight	/	132.
Counting of all other seeds				
Counting of other seeds on purity weight. Indication of the number of other seeds in the	PU-SP-01	/	/	12.
specific purity test.	FO-3F-01	/	/	12.
Limited counting of all other seeds				
Searching of 1 to 4 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be</b>	SP-LI-01	ISTA weight	/	61
searched.	31-11-01	131A Weight	/	01.
Full counting of all other seeds				
Searching of 5 to 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be</b>	SP-LI-02	ISTA weight	,	97.
searching of 5 to 6 species (except for <i>Orobunchaceae</i> ). <b>Indicate the name of the species to be</b>	Jr-LI-UZ	1317 WEIRIIL	/	57.
Searching of more than 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the</b>	SP-LI-20		Cont	act SN
species to be searched.	<del></del>		55.10	
Searching of Cuscuta spp Trefoil, White clover, Hybrid clover, Micheli's clover, Strawberry clover, Arrowleaf clover.	SP-CU100-T	< 100 g	/	86.
	SP-CU250-T	150 to 300g	/	247.
	SP-CU500-T	400 to 600g	/	447.
Searching of Cuscuta spp Alfalfa, Black medick, Red clover, Carnation clover, Egyptian	SP-CU100-P	< 100 g	/	35.
clover, Persian clover.	31 -C0100-F	/ 100 g	,	.رد
· —	SP-CU250-P	150 to 300g	1	87.
	SP-CU500-P	400 to 600g		168.
	SP-AF-3KG2	3 kg		64.
Searching of Avena fatua - Pea. Vetch.		/		169.
	SP-VF-02	,	· · · · · · · · · · · · · · · · · · ·	act SN
Searching by Veskof type - Alfalfa, Black medick, Clover.	SP-VE-02 SP-VE-AUTR		Cont	
Searching by Veskof type - <b>Alfalfa, Black medick, Clover.</b> Searching by Veskof type - <b>Other species.</b>	SP-VE-AUTR	1	Cont /	ጸበ
Searching by Veskof type - <b>Alfalfa, Black medick, Clover.</b> Searching by Veskof type - <b>Other species.</b> Searching by dehydration standard on <b>Alfalfa.</b>		/	Cont /	80
Searching by Veskof type - Alfalfa, Black medick, Clover. Searching by Veskof type - Other species. Searching by dehydration standard on Alfalfa. Full counting of all other seeds	SP-VE-AUTR SP-DESHY	/ /	/ Cont	
Searching of Avena fatua - Pea, Vetch. Searching by Veskof type - Alfalfa, Black medick, Clover. Searching by Veskof type - Other species. Searching by dehydration standard on Alfalfa. Full counting of all other seeds Searching of Orobanche sp. Only on UNTREATED and UNCOATED seeds. Analyse performed on a separate, sealed, submitted subcample	SP-VE-AUTR	/	/ /	71.
Searching by Veskof type - Alfalfa, Black medick, Clover. Searching by Veskof type - Other species. Searching by dehydration standard on Alfalfa. Full counting of all other seeds Searching of Orobanche sp. Only on UNTREATED and UNCOATED seeds. Analyse performed on a separate, sealed, submitted subsample.	SP-VE-AUTR SP-DESHY	/ ISTA weight	/ /	
Searching by Veskof type - Alfalfa, Black medick, Clover. Searching by Veskof type - Other species. Searching by dehydration standard on Alfalfa. Full counting of all other seeds Searching of Orobanche sp. Only on UNTREATED and UNCOATED seeds. Analyse performed on	SP-VE-AUTR SP-DESHY	/ISTA weight	/ /	

### Fodder plants •—

Physical quality			- ··	
Full counting of all other conde		Size	Duration	Price
<b>Full counting of all other seeds</b> Searching of <i>Orobanche</i> sp. and <i>Striga</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on a separate, sealed, submitted subsample.	SP-ORO-STR	ISTA weight	/	105.00
Tests on coated seeds Purity of coated seeds.	PU-IS-21	2 500	/	32.70
Tests on coated seeds Pelleting material removal and full counting on 2 500 coated seeds. Only on UNTREATED	SP-ENR2500	2 500	/	97.00
seeds. Pelleting material removal and full counting on 7 500 coated seeds. Only on UNTREATED seeds.	SP-ENR-TOT	7 500	/	294.00
Pelleting material removal and limited counting of other seeds from 1 to 3 botanical species, on 7 500 coated seeds. <b>Only on UNTREATED seeds.</b>	SP-ENR-LIM	7 500	/	230.00
Moisture content - Provide seeds in sealed foil sachets from which as much air as possible has been extracted				
Oven method.	TE-SN-01	ISTA weight		19.70
Identification of individual seeds Visual identification by species.	ID-IS-01	/	/	33.00
Physiological quality				
		Size	Duration	Price
Germination test on 400 seeds Festulolium, Fenugreek, Tall fescue, Timoty, Harding grass, Birdsfoot trefoil, Alfalfa, Black medick, Rye grass, Sainfoin, Clover, Meadow foxtail.	GE-FG-06-4	1 250	/	61.00
Bent-grass, Yellow oatgrass, Brome, Bermuda grass, Cocksfoot, Meadow fescue, Sheep fescue, Red fescue, Tall oat grass, Meadow grass, Vetch.	GE-FG-09-4	1 250	/	71.00
<b>Germination test on 400 seeds</b> Fodder kale, Forage pea, Forage radish.	GE-FG-18-4	1 250	/	60.00
Germination test on 200 seeds Festulolium, Fenugreek, Tall fescue, Timoty, Harding grass, Birdsfoot trefoil, Alfalfa, Black medick, Rye grass, Sainfoin, Clover, Meadow foxtail.	GE-FG-06-2	500	/	42.40
Bent-grass, Yellow oatgrass, Brome, Bermuda grass, Cocksfoot, Meadow fescue, Sheep fescue, Red fescue, Tall oat grass, Meadow grass, Vetch.	GE-FG-09-2	500	/	47.30
Fodder kale, Forage pea, Forage radish.	GE-FG-18-2	500	/	48.30
Fluorescence Fluorescence of Rye grass roots on 400 seedlings (germination and identification). Enables distinguishing Lolium perenne showing no fluorescence unlike Lolium multiflorum and Lolium boucheanum these exhibit fluorescent roots.	FLUO-1	/	/	106.00
Bacteriology - Uncoated seeds only				
Brassicaceae (Cabbage, Cauliflower, Broccoli, Radish, Turnip) - Detection of 1 pathogen		Size	Duration	Price
Xanthomonas campestris pv. campestris (Xcc) Agar method + pathogenicity test in case of suspect colonies (ISTA 7-019a without counting of colonies).	PA-BA-04	30 000	36 days	203.00
Disinfected seeds . Grinding + agar method + pathogenicity test in case of suspect colonies (ISTA 7-019b without counting of colonies).	PA-BA-105	30 000	36 days	242.00
Agar method + counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-019a).	PA-BA-03	30 000	36 days	214.00
Disinfected seeds . Grinding + agar method + counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-019b).	PA-BA-05	30 000	36 days	255.00
Xanthomonas campestris pv. armoraciae (raphani) (Xca)	DA 51 55	20.005	26.1	40= 5=
Agar method + pathogenicity test in case of suspect colonies.  Disinfected seeds. Grinding + agar method + pathogenicity test in case of suspect colonies.	PA-BA-29 PA-BA-30	30 000	36 days 36 days	195.00 242.00
Pseudomonas syringae pv. maculicola (Psm)	1 W-DW-30	30 000	JU days	
Agar method + pathogenicity test in case of suspect colonies.	PA-BA-10	30 000	36 days	195.00
Disinfected seeds. Grinding + agar method + pathogenicity test in case of suspect colonies.	PA-BA-33	30 000	36 days	246.00





Nematology		Cina	Donation	Duine
Pea		Size	Duration	Price
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B*). UNTREATED seeds only.	PA-NE-POIS	70 g	16 days	70.00
Test carried out on the whole submitted sample. If the supplied quantity is too important, a new sample will be requested.		- 0	, .	
Rye-grass				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B*). <b>UNTREATED seeds only.</b> Test carried out on the whole submitted sample. <b>If the supplied quantity is too important, a new sample will be requested.</b>	PA-NE-RAY	70 g	16 days	70.00
Clover				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B*). UNTREATED seeds only.	PA-NE-TRE	70 g	16 days	70.0
Test carried out on the whole submitted sample. If the supplied quantity is too important, a new sample will be requested.				
Plants (leaves and stems)				
Ditylenchus dipsaci				
Filtration (Anses MOA013 parts A and B).	PA-NE-PLAN	1	16 days	78.0
Virology - Uncoated seeds only				
Alfalfa		Size	Duration	Pric
Alfalfa mosaic (AMV)				
ELISA.	PA-VI-71	2 000	16 days	150.0
Pea				
Tomato black ring virus (TBRV) ELISA.	PA-VI-37	2 000	16 days	160.0
Pea early browning virus (PEBV)				
ELISA (ISTA 7-024).	PA-VI-31	2 000	16 days	160.0
Pea enation mosaic virus (PEMV) ELISA.	PA-VI-57	2 000	16 days	230.0
Bean yellow mosaic virus (BYMV)	DA 1// CO		Cont	CNIEC
ELISA.	PA-VI-60		Cont	act SNES
Bean leaf roll virus (BLRV) ELISA.	PA-VI-67		Cont	act SNES
Southern bean mosaic virus (SBMV)				
ELISA.	PA-VI-88		Cont	act SNES
Broad bean true mosaic virus (BBTMV)				
ELISA.	PA-VI-50		Cont	act SNES
Pea, Vetch				
Pea seed borne mosaic virus (PSbMV) ELISA (ISTA 7-024).	PA-VI-11	2 000	16 days	160.0
ELISA (ISTA 7-024).	PA-VI-II	2 000	16 days	160.0
EVALUATION OF VARIETIES				
LVALUATION OF VARIETIES				
Varietal resistance				
		Size	Duration	Pric
Cabbage		Size	Duration	Pric
Cabbage Fusarium oxysporum f. sp. conglutinans race 1	PA-R-CHO	Size 45	Duration /	
Cabbage  Fusarium oxysporum f. sp. conglutinans race 1  Official protocol.	PA-R-CHO		Duration /	
Cabbage Fusarium oxysporum f. sp. conglutinans race 1 Official protocol. Plasmodiophora brassicae	PA-R-CHO PA-R-CHO-1		Duration /	320.00 235.00
Varietal resistance  Cabbage  Fusarium oxysporum f. sp. conglutinans race 1  Official protocol.  Plasmodiophora brassicae  GEVES protocol.  Cruciferous (Mustard, Forage radish)		45	Duration /	320.0
Cabbage Fusarium oxysporum f. sp. conglutinans race 1 Official protocol. Plasmodiophora brassicae GEVES protocol.		45	Duration /	320.0

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

		Size	Duration	Price
Cruciferous (Mustard, Forage radish)		0.20	24.44.0	
Meloidogyne incognita				
Official protocol.	PA-R-CRU1	45	/	159.0
Meloidogyne hapla				
Official protocol.	PA-R-CRU2	45		159.0
<b>Meloidogyne javanica</b> Official protocol.	PA-R-CRU3	45	,	159.0
Meloidogyne chitwoodi <sup>40</sup>	r A-n-choo	45		133.0
Official protocol.	PA-R-CRU4	45		169.0
<b>Meloidogyne fallax<sup>40</sup></b> Official protocol.	PA-R-CRU5	NEW 45	/	169.0
Festulolium, Fescue, Rye-grass, Italian Rye-grass			· ·	
Kanthomonas translucens pv. graminis				
Official protocol.	PA-R-RAY	162	/	250.0
Alfalfa				
Ditylenchus dipsaci				
Official protocol.	PA-R-LUZ-1	2 000	/	630.0
Verticillium albo-atrum				
Official protocol.	PA-R-LUZ-2	500	/	497.0
Colletotrichum trifolii				
Official protocol.	PA-R-LUZ-3	500	/	228.0
dentification of the race.	PA-R-IDCOL		Conta	act SNE
Sclerotinia trifoliorum				
GEVES protocol.	PA-R-LUZ-4	500		372.0
Fusarium oxysporum f. sp. medicaginis GEVES protocol.	PA-R-LUZ-5	500	/	372.0
Pea				
A <i>scochyta pisi</i> race C				
<b>Ascochyta pisi race C</b> Official protocol.	PA-R-POI-1	30	/	95.0
Official protocol. Fusarium oxysporum f. sp. pisi race 1	PA-R-POI-2	30		
Official protocol.  Fusarium oxysporum f. sp. pisi race 1  Official protocol.			/	
Official protocol. Fusarium oxysporum f. sp. pisi race 1			/	95.0 106.0 98.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1  Official protocol.  BYMV (Bean yellow mosaic virus)	PA-R-POI-2	30	/ /	106.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus)	PA-R-POI-2	30	/	106.0 98.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4	30 30 30	/	98.0 98.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5	30	/	106.0 98.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Different prices outside test periods. Contact SNES for information on the p	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5	30 30 30	/ / /	98.0 98.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Different prices outside test periods. Contact SNES for information on the p	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5	30 30 30	/ / / Duration	98.0 98.0 157.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Different prices outside test periods. Contact SNES for information on the particular of the protocol of the protocol of the protocol of the protocol of the prices outside test periods. Sometimes of the protocol of the protocol of the prices outside test periods. Sometimes of the protocol of the protocol of the prices outside test periods. Sometimes of the protocol of the protocol of the prices outside test periods. Sometimes of the protocol of the protocol of the prices outside test periods.	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5	30 30 30 30	/ / / Duration	98.0 98.0 157.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Different prices outside test periods. Contact SNES for information on the p	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5	30 30 30 30	/ / / / Duration Contact B	98.0 98.0 157.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Different prices outside test periods. Contact SNES for information on the particular of the protocol of the protocol of the protocol of the prices outside test periods. Contact SNES for information on the particular of the protocol of the prices outside test periods.	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5 periods according to the species.	30 30 30 30		98.0 98.0 157.0
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Frysiphe pisi Official protocol.  Fifferent prices outside test periods. Contact SNES for information on the particular of the protocol	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5 periods according to the species.	30 30 30 30		98.0 98.0 157.0 Prid
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Inferent prices outside test periods. Contact SNES for information on the particular of the protocol o	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5 periods according to the species. BI-B-SPEC-TAN	30 30 30 30	Contact B	98.0 98.0 157.0 Prid
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Official p	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5 periods according to the species. BI-B-SPEC-TAN	30 30 30 30	Contact B	98.0 98.0 157.0 PridioGEVE
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Frysiphe pisi Official protocol.  Official protocol.  Frysiphe pisi Official protocol.  Official protoco	PA-R-POI-2  PA-R-POI-3  PA-R-POI-4  PA-R-POI-5  periods according to the species.  BI-B-SPEC-TAN  BI-B-SPEC-FAT	30 30 30 30 Size	Contact B Contact B	98.0 98.0 157.0 PricioGEVE
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Different prices outside test periods. Contact SNES for information on the part of the protocol of the	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5 periods according to the species. BI-B-SPEC-TAN	30 30 30 30 Size	Contact B	98.0 98.0 157.0 Prio
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Different prices outside test periods. Contact SNES for information on the particular protocol of the prices outside test periods. Contact SNES for information on the particular prices outside test periods.  Alfalfa, Pea Fannin content (assay by spectrophotometry).  Pea Antitrypsic factors (assay by spectrophotometry).  Genotyping by molecular biology  Fodder Kale, Pea Varietal identity control.  Varietal purity analysis.	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5 periods according to the species.  BI-B-SPEC-TAN BI-B-SPEC-FAT	30 30 30 30 Size	Contact B  Contact B  Duration  Contact B	98.0 98.0 157.0 Price ioGEVE
Official protocol.  Fusarium oxysporum f. sp. pisi race 1 Official protocol.  BYMV (Bean yellow mosaic virus) Official protocol.  PEMV (Pea enation mosaic virus) Official protocol.  Erysiphe pisi Official protocol.  Inifferent prices outside test periods. Contact SNES for information on the particular protocol protocol protocol.  Inifferent prices outside test periods. Contact SNES for information on the particular prices outside test periods.  Alfalfa, Pea Fannin content (assay by spectrophotometry).  Pea Antitrypsic factors (assay by spectrophotometry).  Genotyping by molecular biology  Fodder Kale, Pea Varietal identity control.	PA-R-POI-2 PA-R-POI-3 PA-R-POI-4 PA-R-POI-5 periods according to the species.  BI-B-SPEC-TAN BI-B-SPEC-FAT	30 30 30 30 Size	Contact B  Contact B  Duration  Contact B	98.0 98.0 157.0 Price ioGEVE

Field test by SEV		
		Price
DUS testing - <b>Brome.</b>	SEV-DHS-BRO	1035.00
DUS testing - Festulolium.	SEV-DHS-FES	1035.00
DUS testing - Tall fescue.	SEV-DHS-FETG	1265.00
DUS testing - Field Pea.	SEV-DHS-POIF	1035.00
DUS testing - Sainfoin.	SEV-DHS-SAI	1035.00
DUS testing - Alfalfa.	SEV-DHS-LUZ	1390.00
DUS testing - Salzmann's restharrow, Fenugreek, Dwarf chickling vetch, Chickling vetch, Hybrid vetch, Narrow-leaved plantain, Field Pea, Berseem clover, Crimson clover, Balansa clover, Persian clover, Clover squarrosum, Arrow-leaf clover, Common Vetch, Hairy vetch, Hungarian vetch, Reddich turfted vetch.	SEV-DHS-AUTFOU	1035.00
New assessment of the value in use of a variety of turf in the catalogue: over 3 years, price per year.	SEV-RETEST-GAZ	2220.00

PUBLICATIONS		
1 Oblic/ (IION)		Price
Method sheet		
Vigour testing – Conductivity - <b>Pea.</b>	VIG-2-M	7.60
Germination analysis technical sheet		
Evaluation of <b>Cabbage</b> seedlings.	GE-T-CHOU	31.20
Evaluation of <b>Alfafa</b> seedlings.	GE-T-LUZ	31.20
Evaluation of <b>Pea</b> seedlings.	GE-T-POI	31.20
Evaluation of <b>Radish</b> seedlings.	GE-T-RAD	31.20
Technical sheet for analysis of specific purity and counting of all other seeds		
Gramineae (Lolium spp. , Festuca arundinacea , Festuca cf. ovina rubra , Festuca pratensis, Dactylis glomerata).	AP-C-1	31.20
Trifolium spp.	AP-C-1B	31.20
Brassica napus.	AP-C-4	31.20
Medicago sativa, Trifolium pratense.	AP-C-7	31.20
Pisum sativum, Vicia faba.	AP-C-8	31.20
Vicia sativa.	AP-C-11	31.20
Seed blower calibration for uniform blowing (Dactylis glomerata, Poa pratensis, Poa trivialis).	AP-M-2	31.20
Identification data sheet of seeds and other impurities		
Polygonaceae (Persicaria maculosa, Persicaria lapathifolia, Fallopia convolvulus, Polygonum aviculare, Rumex sp., Rumex acetosella, Rumex maritimus).	AP-A-03	31.20
Chenopodium sp., Atriplex sp., Amaranthus sp., Reseda sp., Myosotis sp.	AP-A-04	31.20
Lathyrus spp. (Lathyrus sylvestris, Lathyrus latifolius, Lathyrus hirsutus, Lathyrus tuberosus, Lathyrus odoratus, Lathyrus aphaca, Lathyrus pratensis, Lathyrus sativus, Lathyrus cicera).	AP-A-05	31.20
Asteraceae (Anthemis arvensis, Glebionis segetum, Chicorium sp., Tripleurospermum inodorum, Helminthotheca echioïdes, Lapsana communis, Lactuca sativa, Sonchus spp., Cirsium arvense, Cirsium vulgare, Centaurea cyanus).	AP-A-06	31.20
Cuscuta spp.	AP-P-1	31.20
Claviceps purpurea - Sclerotinia sclerotiorum.	AP-P-2	31.20
Collection of seeds - Contact SNES		
Weed's identification for <i>Brassica napus</i> analysis.	APCS-BRA-N	1
Weed's identification for <i>Medicago sativa</i> and <i>Trifolium pratense</i> analysis.	APCS-MED-S	
Weed's identification for <i>Pisum sativum</i> and <i>Vicia faba</i> analysis.	APCS-PIS-S	

#### 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<sup>2</sup>. PU-MEL-01 60 days 489.00 Purity analysis test and determination of the composition of a seed mixture of species Only on naked seeds From 4 components WITH declared composition<sup>2</sup>. PU-MEL-02 **Contact SNES** WITHOUT declared composition. PU-MEL-03 60 days 803.00 Preparation of pure seed for germination testing Seed mixture (less than 4 components) WITH declared composition<sup>2</sup>. PU-PR-19 202.00 From 4 components WITH declared composition<sup>2</sup>. PU-PR-22 Contact SNES WITHOUT declared composition. PU-PR-19-1 484.00 Preparation of pure seeds in dragees on coated seed mixture. PU-PR-19-2 34.20

 $<sup>^{\</sup>rm 2}$  Provide the % of species in the seed mixture.

Physiological quality		
		Price
Germination test on 400 seeds		
Species mixture by component. All the species of the seed mixture will be analyzed whatever is the proportion, except opposite request.	GE-FG-19-4	/3
Germination test on 200 seeds		
Species mixture by component. All the species of the seed mixture will be analyzed whatever is the proportion, except opposite request.	GE-FG-19-2	/3

<sup>&</sup>lt;sup>3</sup> See details of price and size in the chapter of the species.

### Fiber plants

SEED QUALITY				
Physical quality			_	
T Try Steat quality		Size	Duration	Pric
The control of the form of the form of the CNTC)		3120	Duration	1110
Thousand-seed weight (on purity test performed by SNES)	NANAS O1	,	,	21 5
Thousand-seed weight on pure seeds.	MMS-01	/_	/	31.5
Purity analysis test		1074	,	
Purity - Hemp.	PU-IS-14	ISTA weight		43.4
Purity - Flax.	PU-IS-15	ISTA weight		32.1
Percentage of a specific type of other seeds. Specify the search to be performed.	PU-CONS1	/_	/	8.6
Purity analysis test Percentage of a specific type of inert materials. Specify the search to be performed.	PU-CONS2	1	/	8.6
Purity analysis test				
Supplement for purity analysis if received as raw seeds or a very dirty sample.	PU-LB-SUP NE	w /		30.0
Counting of all other seeds				
Full counting - <b>Hemp.</b>	SP-IS-13	ISTA weight	/	75.0
Full counting - <b>Flax.</b>	SP-IS-14	ISTA weight	/	43.4
Counting of other seeds on purity weight. Indication of the number of other seeds in the specific purity test.	PU-SP-01	/	/	12.8
<b>Limited counting of all other seeds</b> Searching of 1 to 4 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be searched.</b>	SP-LI-01	ISTA weight	/	61.0
Full counting of all other seeds Searching of 5 to 8 species (except for <i>Orobanchaceae</i> ). Indicate the name of the species to be searched.	SP-LI-02	ISTA weight	/	97.0
Searching of more than 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be searched.</b>	SP-LI-20		Cont	act SNES
Full counting of all other seeds Searching of Orobanche sp. Only on UNTREATED and UNCOATED seeds. Analyse performed on a separate, sealed, submitted subsample.	SP-ORO	ISTA weight	/	71.0
Full counting of all other seeds Searching of Striga sp. Only on UNTREATED and UNCOATED seeds. Analyse performed on a separate, sealed, submitted subsample.	SP-STRIGA	ISTA weight	/	71.0
Searching of <i>Orobanche</i> sp. and <i>Striga</i> sp. <b>Only on UNTREATED and UNCOATED seeds.</b> Analyse performed on a separate, sealed, submitted subsample.	SP-ORO-STR	ISTA weight	/	105.0
Moisture content - Provide seeds in sealed foil sachets from which as much air as possible has been extracted				
Oven method.	TE-SN-01	ISTA weight	/	19.7
Identification of individual seeds				
Visual identification by species.	ID-IS-01		/	33.0
Physiological quality				
		Size	Duration	Pric
Germination test on 400 seeds Hemp, Flax.	GE-FG-14-4	1 250	/	53.0
Germination test on 200 seeds Hemp, Flax.	GE-FG-14-2	500	/	39.6
			,	
Mycology - See p.8 "Seed health"		Size	Duration	Pric
Hemp				
<b>Botrytis cinerea,</b> Sclerotinia sclerotiorum Blotter method.	PA-ES-CHA	400	23 days	128.0
Flax				
Botrytis cinerea, Boeremia exigua (Phoma exigua), Colletotrichum linicola (Colletotrichum lini), Alternaria linicola, Fusarium (all sections)				
Agar method.	PA-ES-LIN	400	23 days	97.0

## Fiber plants

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Mycology - See p.8 "Seed health"				
		Size	Duration	Price
Flax				
Alternaria linicola, Botrytis cinerea, Colletotrichum linicola (Colletotrichum				
lini)				
Agar method (ISTA 7-007).	PA-BOT-LIN	400	23 days	96.00
		_	_	
EVALUATION OF VARIETIES				
Varietal resistance				
		Size	Duration	Price
Hemp				
Phelipanche ramosa				
Official protocol.	GE-TR-CHOR	/	/	310.00
Genotyping by molecular biology				
Flori		Size	Duration	Price
Flax Varietal identity control.	BI-G-BM-SSR-CID-1		Contact E	SinGEVES
Varietal purity analysis.	BI-G-BM-SSR-PUR-90		Contact E	
Technological quality: biochemicals tests				
		Size	Duration	Price
Flax				
Fatty acid composition (Method GC).	BI-B-CPG-AG		Contact E	BioGEVES
Oil content (NMR).	BI-B-RMN-H		Contact E	BioGEVES
E: 11 1 CE) (				
Field test by SEV				
				Price
DUS testing - Flax, Linseed.		SEV-DHS		1155.00
DUS testing - <b>Hemp.</b>		SEV-DHS-	<b>LПA</b>	1260.00
PUBLICATIONS				
				Price
Germination analysis technical sheet				
Evaluation of <b>Hemp</b> and <b>Flax</b> seedlings.		GE-T-	LIN	31.20

## Corn and sorghum

SEED QUALITY				
Physical quality				
Try Stear quality		Size	Duration	Price
		3126	Duration	FIICE
Thousand-seed weight (on purity test performed by SNES)		,	,	
Thousand-seed weight on pure seeds.	MMS-01	/	/	31.50
Purity analysis test				
Purity - Corn, Sorghum.	PU-IS-02	ISTA weight	/_	24.60
Percentage of a specific type of other seeds. <b>Specify the search to be performed.</b>	PU-CONS1	/	/	8.60
Purity analysis test				
Percentage of a specific type of inert materials. Specify the search to be performed.	PU-CONS2	/	/	8.60
Purity analysis test				
Supplement for purity analysis if received as raw seeds or a very dirty sample.	PU-LB-SUP NEV	v /	/	30.00
Counting of all other seeds				
Full counting - Corn, Sorghum.	SP-IS-02	ISTA weight	1	24.60
Counting of other seeds on purity weight. Indication of the number of other seeds in the	PU-SP-01	/		12.8
specific purity test.	PO-3P-01	/	/	12.0
Limited counting of all other seeds				
Searching of 1 to 4 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be</b>	SP-LI-01	ISTA weight	/	61.0
Full counting of all other seeds				
Searching of 5 to 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be</b>	SP-LI-02	ISTA weight	,	97.0
searched.	3F-LI-02	131A Weight	/	37.0
Searching of more than 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the</b>	SP-LI-20		Cont	act SNES
species to be searched.				
Moisture content - Provide seeds in sealed foil sachets from which as much air as				
possible has been extracted				
Oven method.	TE-SN-01	ISTA weight	/	19.7
Moisture content - Provide seeds in sealed foil sachets from which as much air as				
possible has been extracted				
Supplement for moisture content test requiring pre-drying.	TE-SN-03	/	/	12.8
Identification of individual seeds				
Visual identification by species.	ID-IS-01	/	/	33.0
· ·				
Physiological quality				
Trysiological quality		Size	Duration	Pric
		Size	Duration	Pric
Germination test on 400 seeds				
Corn, Sorghum.	GE-FG-01-4	1 250	/	47.0
Germination test on 200 seeds				
Corn, Sorghum.	GE-FG-01-2	500	/	38.7
Vigour tests				
Cold-test on 400 seeds.	GE-CO	1 250	/	64.0
Cold-test on 200 seeds.	GE-CO2	500		41.0
Accelerated ageing of 200 seeds including germination capacity.	GE-VIEI-2	500		83.0
Radicle emergence test on 200 seeds (ISTA test) - <b>Corn.</b>	GE-EM	/		71.0
Corn root length evaluation after 7 days germination at 15°C (4 replicates of 20 seeds).	GE-EIVI			71.0
Com root length evaluation after 7 days germination at 15 C (4 replicates of 20 seeds).	GE-RAC	/	/	71.0
Mycology - See p.8 "Seed health"				
		Size	Duration	Pric
Corn				
Bipolaris zeicola (Helminthosporium carbonum), Fusarium (section Liseola and other				
sections), Cephalosporium sp., Cochliobolus heterostrophus (Helminthosporium maydis),				
Stenocarpella maydis (Diplodia maydis), Stenocarpella macrospora (Diplodia macrospora	),			
Colletotrichum graminicola, Nigrospora sp.				
Agar method with superficial disinfection. UNTREATED seeds only.	PA-ES-MAID	400	19 days	102.00

## Corn and sorghum

Mysology, Coop 9 "Cood bookb"				
Mycology - See p.8 "Seed health"		Size	Duration	Price
Corn				
Bipolaris zeicola (Helminthosporium carbonum), Fusarium (section Liseola and ot sections), Cephalosporium sp., Cochliobolus heterostrophus (Helminthosporium mo Stenocarpella maydis (Diplodia maydis), Stenocarpella macrospora (Diplodia macro Colletotrichum graminicola, Nigrospora sp.	aydis),			
Agar method without superficial disinfection. <b>Treated seeds only.</b>	PA-ES-MAI	400	19 days	97.00
Ustilago maydis and Sporisorium reilianum (Sphacelotheca reiliana)				
Seed wash method. UNTREATED seeds only.	PA-CH-MAIS	500	15 days	94.00
Sclerospora spp., Sclerophtora spp., Peronosclerospora spp. Seed wash method. UNTREATED seeds only.	PA-MI-MAIS	500	15 days	94.00
Sorghum				
Bipolaris oryzae (Helminthosporium oryzae), Bipolaris cookei (Helminthosporium sorghicola), Fusarium section liseola, Fusarium (other sections), Macrophomina phaseolina, Helminthosporium sp.	1			
Agar method.	PA-ES-SOR	400	19 days	97.00
Virology - Uncoated seeds only				
		Size	Duration	Price
Corn - Detection of 1 pathogen				
Maize chlorotic mottle virus (MCMV)				
ELISA on plantlets.	PA-VI-66	1 000	37 days	293.00
Maize dwarf mosaic virus (MDMV) ELISA on plantlets.	PA-VI-44	1 000	37 days	293.00
Wheat high plains virus (WHPV)	DA VI 63	1 000	27 days	202.00
ELISA on plantlets.	PA-VI-62	1 000	37 days	293.00
Sugarcane mosaic virus (SCMV) ELISA on plantlets.	PA-VI-89	1 000	37 days	293.00
Wheat streak mosaic virus (WSMV)	24.1/1.02	4 000	27.1	
ELISA on plantlets.  Corn - Detection of 2 pathogens. Specify the 2 required viruses	PA-VI-92	1 000	37 days	293.00
MCMV/MDMV/SCMV/WSMV				
ELISA on plantlets.	PA-VI-59	1 000	37 days	455.00
Corn - Detection of 3 pathogens. Specify the 3 required viruses				
MCMV/MDMV/SCMV/WSMV				
ELISA on plantlets.	PA-VI-96	1 000	37 days	567.00
Corn - Detection of 4 pathogens				
MCMV/MDMV/SCMV/WSMV				
ELISA on plantlets.	PA-VI-54	1 000	37 days	803.00
EVALUATION OF VARIETIES				
Genotyping by protein profiling				
		Size	Duration	Price
Corn				
Varietal comparison by isoenzyme electrophoresis.	BI-G-EL-COMP-M		Contact B	
Hybrid Conformity by isoenzyme electrophoresis.	BI-G-EL-CONF-M		Contact B	
Description of a lineage for 19 loci out of 4 seedlings.  Description of a lineage for 14 loci out of 4 seedlings.	BI-G-EL-DVAR-M-19		Contact B	
Description of a lineage for 14 loci out of 4 seedlings.  Identity check test of a line or a hybrid in relation to genitors declared for 14 loci out of 10	BI-G-EL-DVAR-M-14 BI-G-EL-CID-M-10		Contact B Contact B	
grains.	DI-G-FF-CID-IAI-TA		COILLACT B	NOUL VES
Identity check test of a line or a hybrid in relation to genitors declared for 14 loci out of 30 grains.	BI-G-EL-CID-M-30		Contact B	ioGEVES
Purity control by iso-enzymatic electrophoresis - 14l.	BI-G-EL-PUR-M-14		Contact B	ioGEVES
Purity control by iso-enzymatic electrophoresis - 19l.	BI-G-EL-PUR-M-19		Contact B	ioGEVES

## Corn and sorghum

Weed's identification for  $\emph{\emph{Zea mays}}$  analysis.

Corriand Sorgram				
Genotyping by molecular biology				
		Size	Duration	Price
Corn, Sorghum				
Varietal identity control.	BI-G-BM-SSR-CID-1		Contact B	
Varietal purity analysis.	BI-G-BM-SSR-PUR-90		Contact B	ioGEVES
Corn	BI-G-BM-SSR-CONF		Contact D	:aCEVES
Hybrid conformity.	DI-G-DIVI-33K-COINF		Contact B	IOGEVES
Technological quality: biochemicals tests				
		Size	Duration	Price
Sorghum				
Tannin content (assay by spectrophotometry).	BI-B-SPEC-TAN		Contact B	ioGEVES
Detection, identification and quantification of GMOs				
Detection, identification and quantification of GMOS		Size	Duration	Price
Corn		3126	Duration	Price
Detection of the adventitious presence of GMOs in raw products (seeds, grains). List of	BI-D-OGM		Contact B	ioGEVES
methods available on request.				
Identification and quantification of GMO events*. List of methods available on request.	BI-D-OGM2		Contact B	ioGEVES
Field test by SEV				
				Price
DUS testing - Corn.		SEV-DHS-M	AIS	1155.00
DUS testing - Sorghum.		SEV-DHS-S	OR	1155.00
			_	
PUBLICATIONS				
				Price
Germination analysis technical sheet				
Evaluation of <b>Corn</b> seedlings.		GE-FAP-	ZM	31.20
Technical sheet for analysis of specific purity and counting of all other seeds				
Zea mays.		AP-	C-6	31.20
Identification data sheet of seeds and other impurities			47	24.55
Sorghum bicolor.		AP-C	-1/	31.20
Collection of seeds - Contact SNES		4 DCC 754	••	,

APCS-ZEA-M

SEED QUALITY				
Physical quality				
		Size	Duration	Pric
Thousand-seed weight (on purity test performed by SNES)	<b>NANAC</b> 04	,	,	24 5
Thousand-seed weight on pure seeds.	MMS-01	/_	/	31.5
Purity analysis test	DI I I C 02	ISTA woight	,	24.6
Purity - Sunflower, Soybean. Purity - Cabbage-Turnip, Rapeseed, Rutabaga.	PU-IS-02 PU-IS-17	ISTA weight ISTA weight		36.4
Percentage of a specific type of other seeds. <b>Specify the search to be performed.</b>	PU-CONS1	/ /	/	8.0
Purity analysis test		,		
Percentage of a specific type of inert materials. <b>Specify the search to be performed.</b>	PU-CONS2	/	/	8.
Purity analysis test				
Supplement for purity analysis if received as raw seeds or a very dirty sample.	PU-LB-SUP NE	w /	1	30.
-ull counting				
Full counting - <b>Soybean.</b>	SP-IS-02	ISTA weight		24.
Counting of all other seeds				
Full counting - <b>Sunflower</b> .	SP-IS-15	ISTA weight		67.
Full counting - Cabbage-Turnip, Rapeseed, Rutabaga.	SP-IS-16	ISTA weight	/	113.0
Counting of other seeds on purity weight. Indication of the number of other seeds in the specific purity test.	PU-SP-01	/	/	12.
Limited counting of all other seeds				
Searching of 1 to 4 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be</b>	SP-LI-01	ISTA weight	/	61.
searched.				
Full counting of all other seeds				
Searching of 5 to 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the species to be</b>	SP-LI-02	ISTA weight	/	97.
Searching of more than 8 species (except for <i>Orobanchaceae</i> ). <b>Indicate the name of the</b>	SP-LI-20		Cont	act SNI
species to be searched.				
Full counting of all other seeds				
Searching of Orobanche sp. Only on UNTREATED and UNCOATED seeds. Analyse performed on	SP-ORO	ISTA weight	/	71.
a separate, sealed, submitted subsample.				
Full counting of all other seeds Searching of Striga sp. Only on UNTREATED and UNCOATED seeds. Analyse performed on a	SP-STRIGA	ISTA weight	,	71.
separate, sealed, submitted subsample.	Si Silila	1317 Weight	,	,
Searching of Orobanche sp. and Striga sp. Only on UNTREATED and UNCOATED seeds. Analyse	SP-ORO-STR	ISTA weight	/	105.
performed on a separate, sealed, submitted subsample.				
Moisture content - Provide seeds in sealed foil sachets from which as much air as				
possible has been extracted Oven method.	TE-SN-01	ISTA weight	/	19.
Moisture content - Provide seeds in sealed foil sachets from which as much air as	12 314 01	1317 Weight		
possible has been extracted				
Supplement for moisture content test requiring pre-drying.	TE-SN-03	/	/	12.
dentification of individual seeds				
Visual identification by species.	ID-IS-01	/	/	33.0
Physiological quality				
		Size	Duration	Pri
Germination test on 400 seeds	CF FC 46 4	4 350	,	F4 :
Sunflower. Rapeseed, Mustard, Turnip Rape.	GE-FG-16-4 GE-FG-17-4	1 250 1 250		51.0 50.0
Germination test on 200 seeds	GL-FG-1/-4	1 230	/	30.
Sunflower.	GE-FG-16-2	500	/	42.
Rapeseed, Mustard, Turnip Rape.	GE-FG-17-2	500		38.
/igour test			-	
Cold Test (400 seeds) - <b>Sunflower.</b>	GE-CO-TO-4	1 250	/	64.
Cold Test (200 seeds) - <b>Sunflower.</b>	GE-CO-TO-2	500	/	41.
vigour test - Early count in cold (200 seeds) - <b>Sunflower</b> .	GE-EM-TO	/	1	34.4
Controlled deterioration of 200 seeds including germination capacity.	GE-DET-1	500	/	83.0

Physiological quality				
		Size	Duration	Price
Vigour test				
Radicle emergence test on 200 seeds (ISTA test) - Rapeseed.	GE-EM	/	/	71.00
Conductivity test on 200 seeds on ISTA species.  The moisture content of seeds should be between 10 and 14 %, sample must be send in a sealed foil sachet with the indication of the water content, otherwise it would be determined by us before the test and invoiced (see test TE-SN-01).	GE-CON-GLO	500	/	53.00
sejore the test and invoiced (see test 12 sit 62).				
Bacteriology - Uncoated seeds only				
		Size	Duration	Price
Rape - Detection of 1 pathogen				
Xanthomonas campestris pv. campestris (Xcc)				
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-019a without counting of colonies).	PA-BA-04	30 000	36 days	203.00
Agar method + counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-019a).	PA-BA-03	30 000	36 days	214.00
<b>Disinfected seeds</b> . Grinding + agar method + pathogenicity test in case of suspect colonies (ISTA 7-019b without counting of colonies).	PA-BA-105	30 000	36 days	242.00
<b>Disinfected seeds</b> . Grinding + agar method + counting of colonies + pathogenicity test in case of suspect colonies (ISTA 7-019b).	PA-BA-05	30 000	36 days	255.00
Xanthomonas campestris pv. armoraciae (raphani) (Xca)				
Agar method + pathogenicity test in case of suspect colonies.	PA-BA-29	30 000	36 days	195.00
<b>Disinfected seeds.</b> Grinding + agar method + pathogenicity test in case of suspect colonies.	PA-BA-30	30 000	36 days	242.00
Pseudomonas syringae pv. maculicola (Psm)				
Agar method + pathogenicity test in case of suspect colonies.	PA-BA-10	30 000	36 days	195.00
<b>Disinfected seeds.</b> Grinding + agar method + pathogenicity test in case of suspect colonies.	PA-BA-33	30 000	36 days	246.00
Rape - Detection of 2 pathogens				
Xcc + Xca	DA DA OC	20.000	26 4	246.00
Agar method + pathogenicity test in case of suspect colonies (ISTA 7-019a without counting of colonies for Xcc and Xca).	PA-BA-06	30 000	36 days	246.00
<b>Disinfected seeds</b> . Grinding + agar method + pathogenicity test in case of suspect colonies (ISTA 7-019b without counting of colonies for Xcc).	PA-BA-07	30 000	36 days	292.00
Xcc + Psm				
Agar method + pathogenicity test in case of suspect colonies colonies (ISTA 7-019a without counting of colonies for Xcc).	PA-BA-45	30 000	36 days	300.00
Xca + Psm				
Agar method + pathogenicity test in case of suspect colonies.	PA-BA-46	30 000	36 days	300.00
Rape - Detection of 3 pathogens				
Agar method + pathogenicity test in case of suspect colonies colonies (ISTA 7-019a without	PA-BA-08	30 000	36 days	350.00
counting of colonies for Xcc and Xca).	FA-DA-00	30 000	Jo days	330.00
Sunflower				
Pseudomonas syringae pv. helianthi	DA DA 07	г 000	26 days	257.00
Agar method + pathogenicity test in case of suspect colonies.	PA-BA-87	5 000	36 days	257.00
Xanthomonas arboricola  Agar method + pathogenicity test in case of suspect colonies.	PA-BA-100	5 000	39 days	257.00
Pseudomonas cichorii		3 000	os auys	
Agar method + pathogenicity test in case of suspect colonies.	PA-BA-122	5 000	36 days	262.00
Mycology - See p.8 "Seed health"				
Para		Size	Duration	Price
Rape				
Leptosphaeria maculans and/or Plenodomus biglobosus (Phoma lingam), Alternaria brassicae, Alternaria brassicicola, Alternaria japonica, Sclerotinia				
sclerotiorum, Botrytis cinerea, Phoma sp.				
Agar method (derivated from ISTA method 7-004).	PA-ES-CHO	400	19 days	97.00
Leptosphaeria maculans and/or Plenodomus biglobosus (Phoma lingam)				
Agar method (ISTA 7-004).	PA-PH-CHO	1 000	25 days	242.00

Mycology - See p.8 "Seed health"				
,		Size	Duration	Price
Rape				
Albugo candida				
Seed wash method. UNTREATED seeds only.	PA-ALB-CHO	500	15 days	94.00
Hyaloperonospora parasitica (downy mildew)				
Seed wash method. UNTREATED seeds only.	PA-MI-CHO	500	15 days	94.00
Grow-out method (viability testing).	PA-MICHOGO	400	42 days	119.00
Carnation				
Alternaria papavericola (Helminthosporium papaveris), Fusarium (all sections), Botrytis sp., Alternaria sp.				
Agar method.	PA-ES-OEI	400	19 days	97.00
Sunflower			25 4475	
Botrytis cinerea, Sclerotinia sclerotiorum, Alternariaster helianthi (Alternaria				
helianthi)				
Blotter method derivated from ISTA method 7-003.	PA-ES-TOU	400	23 days	125.00
Sunflower				
Botrytis cinerea				
Blotter method (ISTA 7-003).	PA-BOT-TOU	400	23 days	128.00
Phomopsis helianthi (Diaporthe helianthi), Botrytis cinerea, Sclerotinia				
sclerotiorum, Alternariaster helianthi (Alternaria helianthi)				
Agar method with superficial disinfection. <b>UNTREATED seeds only.</b>	PA-PHOTOUD	400	23 days	102.00
Agar method without superficial disinfection. <b>Treated seeds only.</b>	PA-PHO-TOU	400	23 days	96.00
Puccinia helianthi (rust)				
Seed wash method. UNTREATED seeds only.	PA-RO-TOU	500	15 days	94.00
Septoria helianthi (leaf spot)				
Seed wash method. UNTREATED seeds only.	PA-SEP-TOU	500	15 days	94.00
Pustula tragopogonis (Albugo tragopogonis) (white rust)				
Seed wash method. UNTREATED seeds only.	PA-ALB-TOU	500	15 days	94.00
Virology - Uncoated seeds only				
		Size	Duration	Price
Sunflower				
Cucumber mosaic virus (CMV)				
ELISA.	PA-VI-56	2 000	16 days	225.00
EVALUATION OF VARIETIES				
Varietal resistance				
		Size	Duration	Price
Rapeseed				
Plasmodiophora brassicae pathotypes P1+ / P1- / P2+ or P2-	D. D. 66:		,	
Official protocol.	PA-R-COLZA	45	/	267.00
Identification of Plasmodiophora brassicae pathotype		,	,	
From galls, per sample.	PA-RIDPLA1		/	434.00
From soil, per sample.  Sunflower	PA-RIDPLA3		/	652.00
Plasmopara halstedii races 100 / 304 / 307 / 314 / 334 / 703 / 704 / 710 / 714 / 774 or 714-Pl8				
Official protocol on 30 plants (hybrids).	PA-R-TOURN1	45	/	95.00
For all requests for 9 races during the CTPS test period (April-May) or any request for 9		.5	,	23.00
races outside CTPS test periods but on a minimum of 20 varieties, a 20% discount will be				
carried out.	DA D TO::00:0		,	46= 66
Official protocol on 60 plants (lines).	PA-R-TOURN2	90	/	165.00
Plasmopara halstedii				
Identification of the race.	PA-ID-PLA	/	/	311.00
Resistance to OXTP, by isolate.	PA-RIDPLA2	/	/	94.00

 ${\it Different\ prices\ outside\ test\ periods.\ Contact\ SNES\ for\ information\ on\ the\ periods\ according\ to\ the\ species.}$ 

Glycine max.		AP-C-3	31.20
Helianthus annuus.		AP-C-2	31.20
Technical sheet for analysis of specific purity and counting of all other seeds			
Evaluation of <b>Rapeseed</b> seedlings.		GE-FAP-BN	31.20
Evaluation of <b>Sunflower</b> seedlings.		GE-T-TOU	31.20
Germination analysis technical sheet			
Germination method of <b>Rapeseed.</b>		GE-M-COL	7.60
Vigour testing – Conductivity - <b>Pea.</b>		VIG-2-M	7.60
Vigour testing – Rapeseed.		VIG-1-M	7.60
Method sheet			
			Price
PUBLICATIONS			
Contact patrick.bagot@geves.fr			
Checking the pollen beetles trap characteristic - Rapeseed.		SEV-COL-MEL	/
DUS testing - <b>Sunflower</b> .		SEV-DHS-TOU	1155.00
DUS testing - Rapeseed.		SEV-DHS-COL	1390.00
			Price
Field test by SEV			
Field test by SEV			
Identification and quantification of GMO events. List of methods available on request.	BI-D-OGM3	Co	ontact BioGEVES
methods available on request.			
Detection of the adventitious presence of GMOs in raw products (seeds, grains). List of	BI-D-OGM1	Co	ontact BioGEVES
Rapeseed			
		Size Dui	ration Price
Detection, identification and quatification of GMOs			
Oil content (NIRS).	BI-B-NIRS-H	Co	ontact BioGEVES
Protein content (NIRS).	BI-B-NIRS-P	Co	ontact BioGEVES
Glucosinolate content (NIRS).	BI-B-NIRS-GLU	Co	ontact BioGEVES
Glucosinolate content (HPLC method).	BI-B-HPLC-GLU-1	Co	ontact BioGEVES
Camelina, Rapeseed, White and brown Mustard			
Fatty acid composition (CPG method).	BI-B-CPG-AG	Cc	ontact BioGEVES
Camelina, Rapeseed, Sunflower	ח-אוואווז-ם-וט	CC	MILLION DIOGEVES
Oil content (NMR).	BI-B-RMN-H	رر	ontact BioGEVES
Rapeseed, Sunflower	DI-D-HFLC-GLU-Z		
Glucosinolate content on whole plants or parts of plants (HPLC).	BI-B-HPLC-GLU-2	Cc	ontact BioGEVES
Rapeseed		Size Dui	ation File
reclinological quality . Diochemicals tests		Size Dui	ration Price
Technological quality : biochemicals tests			
nyona comormity.	PI-G-INIC-33R-CUNF	CC	MILACL BIOGEVES
Rapeseed Hybrid conformity.	BI-G-BM-SSR-CONF	C	ontact BioGEVES
Varietal identity control.	BI-G-BM-SSR-CID-1	Co	ontact BioGEVES
Varietal purity analysis.	BI-G-BM-SSR-PUR-90	Co	ontact BioGEVES
Rapeseed, Sunflower			
		Size Dui	ration Price
Genotyping by molecular biology			
Purity test of a batch for 6 loci out of 100 seedlings.	BI-G-EL-PUR-C-100P	Co	ontact BioGEVES
Description of a variety for 6 loci out of 10 seedlings.	BI-G-EL-DVAR-C	Co	ontact BioGEVES
Hybrid conformity by Isoenzyme electrophoresis.	BI-G-EL-CONF-C	Co	ontact BioGEVES
Varietal comparison by isoenzyme electrophoresis.	BI-G-EL-COMP-C	Co	ontact BioGEVES
Rapeseed		Size Dui	ation File
- denotyping by protein profiling		Size Du	ration Price
Genotyping by protein profiling			
•			

		Price
Technical sheet for analysis of specific purity and counting of all other seeds		
Brassica napus.	AP-C-4	31.20
Identification data sheet of seeds and other impurities		
Chenopodium sp., Atriplex sp., Amaranthus sp., Reseda sp., Myosotis sp.	AP-A-04	31.20
Claviceps purpurea - Sclerotinia sclerotiorum.	AP-P-2	31.20
Collection of seeds - Contact SNES		
Weed's identification for <i>Brassica napus</i> analysis.	APCS-BRA-N	/
Weed's identification for <i>Helianthus annuus</i> analysis.	APCS-HEL-A	/

## Micro-cleaning



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

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

### HOW IT IS DONE?

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

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



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

### **EQUIPMENTS**

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

		Price
MN-SN-01		56.00 €
MN-SN-02		51.00 €
MN-SN-03		80.00€
MN-SN-04		72.00 €
MN-SN-05		64.00 €
MN-SN-06		Contact SNES
MN-SN-07		Contact SNES
MN-SN-08		95.00 €
MN-SN-09	NEW	72.00 €
MN-SN-10	NEW	65.00 €
MN-SN-11	NEW	50.00€/h
MN-SUP		12.00€
	MN-SN-02 MN-SN-03 MN-SN-04 MN-SN-05 MN-SN-06 MN-SN-07 MN-SN-08 MN-SN-09 MN-SN-10 MN-SN-10	MN-SN-02 MN-SN-03 MN-SN-04 MN-SN-05 MN-SN-06 MN-SN-07 MN-SN-08 MN-SN-09 MN-SN-10 MN-SN-10 MN-SN-11 MEW

Requests for information: contact.mn@geves.fr





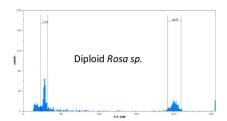
### Evaluation of ploidy level from plants or seeds.

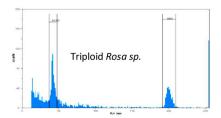
Cytology analyses carried out by the SNES aim to determine the level of ploidy by chromosome counting of root meristematic cells and/or flow cytometry. Ploidy defines the number of chromosome copies of a cell. The level of ploidy is characteristic of the species or variety. These analyses can be carried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

### **FLOW CYTOMETRY**

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

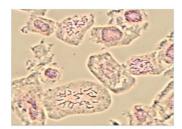
Flow cytometry is mainly used to determine the level of ploidy of a series of plants and variety. In some cases, flow cytometer is also used to identify species with a very similar morphology or mutilated or poorly formed seeds.



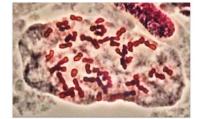


#### **MICROSCOPY**

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



Metaphase cells of Festulolium



Metaphase cells of Gardenia

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

## Radiography 2D and tomography

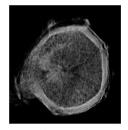
### Tools for evaluating seed quality.

#### WHY USE 2D OU 3D RADIOGRAPHY?

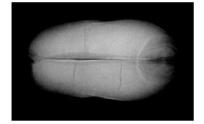
Radiography allows the internal morphology of seeds to be visualised. The objective is to understand or predict problems of physical or germinative quality. This tool also allows the phenotyping of precise characters of interest according to the request.

### WHAT IS THE DIFFERENCE BETWEEN 2D RADIOGRAPHY AND TOMOGRAPHY?

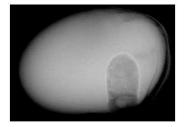
2D radiography is a non-destructive method that allows rapid observation of different criterias on seeds (physical damages, empty seeds, insect damages, etc.). This technology allows a qualitative diagnosis of the state of the internal morphology. The Physical Analysis laboratory is ISTA accredited for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







Physical damades



Insect damages

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



Evaluation of the quality of the coating



Quantification of insect damages



Quantification of cracks on a Corn seed

RX-SUP-05

**RX-SUP-TO** 

bea-tomographe@geves.fr

bea-tomographe@geves.fr

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

Visual or automatic image processing.

Supply of a batch of 2D images in jpg format.

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



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

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

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

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

### APPLICATION OF PRODUCTS ON SEEDS

Treatment of seeds is possible depending on the type of treatment and use. For more information, please contact SNES.

Depending on the quantity of seeds to be treated and the formulation of the product, 3 different tools can be used: Orbital agitator (20 g, liquid formulation); Hege bowl (500 g); Satec Concept treatment machine (up to 2 kg).

Application of a seed treatment product by SNES in the case of a treatment evaluation.

Price
43.40

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

### EVALUATION OF TREATMENTS FOR SEED AND PLANT PROTECTION

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

### Few examples of available pathosystems<sup>4</sup>

Wheat	Fusarium spp. (Fusarium graminearum, Fusarium avenaceum, Fusarium culmorum).		Fusarium graminearum. Fusarium verticilioides.	
	Tilletia caries.	Maize		
	Microdochium nivale.		Rhizoctonia solani	
			Pythium sp.	
	Puccinia striiformis, Puccinia triticina.	Beet	Aphanomyces cochlioides, Pythium sp.	
Rapeseed	Plasmodiophora brassicae.		Plasmopara halstedii.	
	Hyaloperonospora brassicae	Sunflower	Fusarium moniliforme	
	Phoma lingam.		Verticillium dahliae.	
	Alternaria brassicicola.	Lettuce	Fusarium oxysporum.	
4				

<sup>&</sup>lt;sup>4</sup>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 ).	GE-EG	18.40
Counting dates for energy vary according to the species.		
Germination kinetics by image analysis (average rate of germination, kinetic curve).	GE-CI	sylvie.ducournau@geves.fr
Seedling development tests		
Corn root length evaluation after 7 days germination at 15°C (4 replicates of 20 seeds).	GE-RAC	71.00
Dry biomass of 4 replicates of 20 seedlings after germination test.	GE-BIOM	51.00
Growth kinetics by image analysis (Eloncam bench).	GE-ELON	sylvie.ducournau@geves.fr

## Disease test supplies: inoculum and reference material

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

Specifics preparations of pests' inoculum				
		Size Du	ıration	Price
Specific preparation				
Suspension of <i>Ditylenchus dipsaci larvae</i> (exemple of price: 1 270€ to inoculate 9000 plants).	PA-AD-DIT		Conta	ct SNES
Beet seedlings contaminated with viruliferous aphids <i>Myzus persicae</i> carrying yellowing virus BChV ( <i>Beet chlorosis virus</i> ).	PA-AD-MYZ		Conta	act SNES
Other isolates and inoculum				
One tray of 140 seedlings infected by a race of stripe/yellow rust ( <i>Puccinia striiformis</i> ). Contact jean-philippe.maigniel@geves.fr.	PA-AD-ROU2	/	/	120.00
100 mg of a vial of spores of stripe rust ( <i>Puccinia striiformis</i> ) or brown rust ( <i>Puccinia recondita</i> ) or crown rust ( <i>Puccinia coronata</i> ).	PA-AD-ROU	/	/	54.00
Inoculum supplied in Petri dishes.	PA-AD-INOC		Conta	ct SNES
Inoculum supplied as contaminated cotyledons, plants or fresh leaves.	PA-AD-INOP		Conta	ct SNES
Inoculum supplied in artificially contaminated grains that have lost germination capacity or artificially contaminated seeds that have maintained a germination capacity.	PA-AD-INOG		Conta	act SNES
Inoculum supplied in liquid suspension.	PA-AD-INOL		Conta	ct SNES
Cyst of Globodera pallida <sup>40</sup> or Globodera rostochiensis <sup>40</sup> .	PA-AD-GLO		Conta	ct SNES
Cyst of Heterodera schachtii.	PA-AD-HET		Conta	ct SNES
Reference material : isolates and seeds				
Reference material. Isolates and seeds				Price
<b>Bioagressors isolates</b> Specific preparation of reference isolate in Petri dishes (2 dishes/strain), dessicated (Bos) (1 g) or po	anulation of free	PA-AD-FOU		150.00
living nematodes or cysts (around 20).	palation of free	14 45 100		150.00
Specific preparation of 5 g of galls of <i>Meloidogyne incognita</i> (for inoculation of 15 to 20 plantlets).		PA-AD-MEL		160.00
Specific preparation of 5 g of galls of <i>Plasmodiophora brassicae</i> (for inoculation of 50 to 100 plantle	ts).	PA-AD-PLAD		160.00
Specific preparation				
50 to 100 seeds of germinated <b>Sunflower</b> seeds contaminated by <i>Plasmopara halstedii</i> (downy mil	dew).	PA-AD-TOU2		137.00
<b>Lettuce</b> seedlings infected with 1 race of <i>Bremia lactucae</i> , 30 cotyledons in the test period.		PA-AD-BREM		160.00
Erysiphe pisi, 2 seedlings with presence of sporulation.		PA-AD-ERYS		160.00
2 cotyledons of <b>Melon</b> infected by 1 race of <i>Golovinomyces cichoracearum</i> (powdery mildew).		PA-AD-GOL		160.00
2 cotyledons of <b>Melon</b> infected by 1 race of <i>Podosphaera xanthii</i> (powdery mildew).		PA-AD-POD		160.00
2 <b>Lettuce</b> seedlings infected with <i>Nasonovia ribisnigri</i> race Nr: 0 with presence of apterae.		PA-AD-NAS		160.00
30 leaves of <b>Basil</b> contaminated by <i>Peronospora belbahri</i> .		PA-AD-BEL		160.00
Controls/differential hosts vegetables (MATREF) for one sowing unit (1 g for Bremia,				
200 seeds for other pathogens)				
Complete pack of differential hosts for <i>Bremia</i> of <b>Lettuce.</b>		PA-HD-BLAI		326.00
Controls/differential hosts vegetables (MATREF) for one sowing unit (1 g for Bremia,				
200 seeds for other pathogens) Carrot.		PA-HD-CAR		47.00
Squash.		PA-HD-CAK		77.00
Watermelon.		PA-HD-PAS		77.00
Bean.		PA-HD-HAR		60.00
Lettuce.		PA-HD-LAI		60.00
Corn salad.		PA-HD-MAC		43.80
Melon.		PA-HD-MEL		77.00
Capsicum.		PA-HD-PIM		88.00
Pea.		PA-HD-POI		60.00
Tomato.		PA-HD-TOM		77.00

Tomato Rootstock.

PA-HD-PGTO

88.00

## Sector support



Inter-laboratory proficiency testing (ILPT) is used to evaluate the ability of a laboratory to perform a method.

For more information, visit our website <u>www.geves.fr</u>.

The organisation of comparative tests includes planning and delivery of documents to participants, preparation of samples, definition of a reference, interpretation of results and issuing of a final report.

Not included: supply of seeds cost (billed at actual price), and the shipment cost (billed on the basis of a Chronopost shipment).

### Inter-laboratory proficiency tests – PT & Other comparisons

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

### **AUDITS**

According to various standards (ISTA, recognition in the context of certification), laboratory audits can be carried out to analyse your organisation.

One-day audit includes an analysis of a pre-audit file, the conducting of the audit as well as the audit report.

Contact : Fabienne Brun (audit.semences@geves.fr).

### REFERENCE MATERIALS AND DOCUMENTS SUPPLIES

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

### TRAININGS - EXPERTISES

To apply for training		Price	Contact
Technichal training with SNES.		/	Fabienne BRUN
Seed quality analysis, inter or in-company, at SNES or on-site.			formation.semences@geves.fr
Technichal training with BioGEVES.		/	biogeves.analyses@geves.fr
Technichal training with SEV.		1	rachel.tessier@geves.fr
For the setting up of an expertise in an international context			
Technical expertise and visit.		/	secretariat.direction@geves.fr
Collective reading of results			
Collective reading of germination results, details of abnormals and debriefing of the results reading, per sample.	GE-LECT	96.00€	service.clients@geves.fr

### **OUR PUBLICATIONS**

### AND REFERENCE MATERIAL







More information at www.geves.fr

Contact: Inr.semences@geves.fr



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

### Terms and Conditions



#### Article 1 - General Information

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

- characterization and/or identification of varieties,
- agronomic quality of varieties,
- physical, physiological and sanitary control of seed.

#### Article 2 - Object and field of application

The analyses carried out within the framework of any order are in accordance with the present general terms of sale.

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

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.

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.

If a customer places an order to GEVES, without having carried out the payment of preceding orders despite reminder from GEVES, GEVES can repudiate the order, without the customer being able to claim any allowance, whatever the reason.

GEVES reserves itself the right to refuse any order.

#### Article 4 - Delivery of the results

4-1) Delivery time

The delivery time of the results are given only on a purely informative and indicative basis; those depending in particular on arrival of the orders, the respect of the conditions of preparation of the samples sent by the customer (weight, number, packing for example), request for more information, or complementary analyses. For each service, useful information is available on the GEVES website (www.geves.fr). In any assumption, the delivery within the deadlines can intervene only if the customer is up to date of his obligations with GEVES.

GEVES shall endeavor to meet agreed deadlines with the customer.

Delays of delivery of results cannot lead to any penalty or allowance, nor to justify the cancellation of the order.

4-2) Terms

The delivery of the results is made by paper form or by electronic way.

4-3) Complaints

The complaints are to be forwarded to the customer service of GEVES whose contacts appear in the GEVES price list. GEVES acknowledges to the customer the receipt of the complaint, deals with it and defines an appropriate treatment as soon as possible. GEVES shall inform the plaintiff of the progress of the claim and the conclusions.

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

#### 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

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.

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

#### Article 8 - Invoicing

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

#### Article 9 - Payment

9.1) - Time for payment

The maximum payment time is 60 days from the date of emission of the invoice.

9.2) - Terms

The payments shall be made:

- by French postal or bank check or credit or postal transfer addressed to: GEVES, 25 rue George Morel, CS 90024, 49071 Beaucouzé Cedex FRANCE

- by signed and accepted draft or promissory note. GEVES does not authorize any discount for cash payment or on a former date to those resulting from these general terms of sale.

9.3) - Delay of payment

Any sum still not paid at the due date by the customer will give rise to the payment of penalties at the rate of the European Central Bank plus 10 points and a lump sum of 40 Euros for recovery costs in compliance with Decree n° 2012-1115. These penalties are payable automatically without prior notice from GEVES on the date following the due date. Moreover, GEVES reserves itself the faculty to apply to the competent court of law to stop this non-fulfillment, under penalty per day of delay.

#### Article 10 - Confidentiality - Rights of ownership

GEVES guarantees the confidentiality of the results of analysis, unless the detection of a quarantine pathogen. Under such circumstances, GEVES has to communicate immediately to the qualified services of the ministry in charge of agriculture all information relating to the material in which the quarantine pathogen was identified.

This exception also applies to other situations, such as the detection of fortuitous presence of GMO, if the regulation in force imposes to GEVES to communicate information to the qualified services of the French State.

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

#### Article 11 - Personal data

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

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

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

#### Article 12 - Agreement of proof

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

The Parties expressly agree that this Quotation concluded in electronic form and signed in a dematerialized way, as well as the documents relating to it:

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

#### Article 13 - Force majeure

The emergence of a case of force majeure causes the suspension of the execution of the

#### 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
- declares that he has read and accepts them,
- waives its own purchasing conditions