



Naktuinbouw Laboratories Price list 2023

Information about the price list and instructions

Basic fee 2023

- * Basic rates will be calculated per assignment:

Basic rate per assignment per crop	Regular	€ 28,70
	Via myNaktuinbouw	€ 17,30
Basic rate per sample		€ 0,40

- * Assignments for plant material: Samples of the same crop are jointly registered in one assignment. The basic rate will be charged once.
- * Assignments for seeds and soil: Each sample is registered as a separate assignment. The basic rate is charged per sample.
- * Assignments for a combination of soil, seeds and plant material: These are different samples and are registered as a separate assignment. The basic rate is charged per assignment.

General instructions on submitting samples

- * The material must be packaged in plastic and the packaging must be sealed properly. Send the sample in a sturdy box. Secure the submission form in the parcel.
- * Liquid samples must be submitted in vapour-tight packaging.
- * For shipments from outside the European Union we have a sticker available to send samples without a phytosanitary certificate. For inquiries please contact our lab administration (laboratory@naktuinbouw.com).
- * Submission forms for the different types of orders can be found at our website, they can also be requested at the administration (laboratory@naktuinbouw.com).
- * If you state on your shipment that it is URGENT and has to be given priority, the sample will be prepared and tested as soon as possible. An extra urgency rate will apply.

myNaktuinbouw

Requests for seed analysis, seed health testing and nematode testing, can be submitted electronically through myNaktuinbouw. You enter the data of the sample and select the appropriate tests. Subsequently, the sample can be sent to Naktuinbouw. When results of the tests are ready, they are available at myNaktuinbouw. You will receive the certificates as you're used to.

More information can be found on www.naktuinbouw.com or feel free to contact us via: mijn@naktuinbouw.nl.

Additional instructions

Submitting seeds

- * Seed tests have been developed and validated for untreated seeds. Since the reliability of health tests may be affected if seeds have been treated, submitted seed samples should preferably be untreated. This does not apply for tests where it is stated that it can be applied on treated seeds.
- * If seeds have been disinfected, coated or pilled, please inform us accordingly for the sake of the safety of our employees and possible influence on test results.

Submitting plant material

- * Make sure your plant material is at our laboratory before or on the Wednesday prior to the test week as we are closed in the weekends; material received on Friday can't be proceeded.
- * If you have more questions about sampling, please contact our account manager (laboratory@naktuinbouw.com).

Submitting material for diagnostic testing

- * Pack roots and leaves in such a way that leaves cannot be polluted by soil, e.g. by wrapping the roots in a separate plastic bag and sealing it with a elastic band around the stems.
- * Send a whole plant if possible. Leaf symptoms may be caused by root problems.
- * If needed you can send pictures to diagnostiek@naktuinbouw.nl.

Submitting material to make it free from viruses

- * Special conditions apply to the submission of material which has to be made free from viruses. You can obtain more information at Naktuinbouw Test Center in Horst (Netherlands); testcenter@naktuinbouw.com or by phone on +31 77 398 59 19.

Contact with Naktuinbouw Laboratories

Contacting Naktuinbouw Laboratories

You can contact the Laboratory Administration directly for any questions and assignments:

Administration +31 71 332 61 50
Planning +31 71 332 62 40
e-mail laboratory@naktuinbouw.com

Shipping address for samples

Naktuinbouw
attn. Administration Laboratories
P.O. Box 40
2370 AA Roelofarendsveen
The Netherlands

Visitors address

Naktuinbouw
Sotaweg 22
2371 GD Roelofarendsveen
The Netherlands

For specific diagnostic enquiries please contact our Diagnostic department:

Tel. +31 71 332 62 55
e-mail diagnostiek@naktuinbouw.com

If you have any specific laboratory questions regarding diseases in fruit crops, arboricultural crops or strawberries, contact Test Center Horst:

Tel. +31 77 398 59 19
e-mail testcenter@naktuinbouw.com

Terms and conditions of delivery and disclaimer

The General Terms and Conditions of Naktuinbouw apply to all services provided by the Naktuinbouw Laboratories (registered with the Chamber of Commerce and Industry for Rijnland in Leiden, the Netherlands, under no. 41150707). You can find on our website: www.naktuinbouw.com/terms-and-conditions.

All amounts stated are excluding VAT. Changes to rates are reserved.

If testing / diagnosis is not carried out by Naktuinbouw but, after having consulted the client, is subcontracted to a third party, the corresponding costs will be charged to the client.

If you state on your package that it concerns an **URGENT** assignment, an urgency rate will be apply.

Diagnostic samples are always priority; an extra urgency rate will apply.

Additional testing may be required if a possible pathogen is found. Extra costs for confirmation testing will be charged.

The results of tests or assessments provided by Naktuinbouw Laboratories only relate to the actual sample tested and not to the lot concerned, unless Naktuinbouw states otherwise.

Diagnostics

Diagnostics brings the practice of horticulture, the diagnosticians and the researchers of Naktuinbouw Laboratories together. Annually about 250 different crops from numerous countries are studied. The wide experience makes Diagnostics a good partner for reliable diagnoses of diseases, pests and cultivation problems. Please note that our Diagnostics team only performs tests on material with symptoms.

Composition of the test fee

Our Diagnostics Team works with a fixed rate. The advantage for the person submitting samples is that the costs of diagnostic testing are known in advance. Assignments are immediately processed. And savings can also be made on the handling and administrative costs, which will help keep the fees down. The fees below are including the urgency rate. Our Diagnostic Laboratory can handle virus tests for limited-scope diagnosis such as TSWV, INSV and PepMV rather quickly and the applicant can have the test result usually within one day. If necessary, found organisms can be further identified with the help of molecular techniques. We have seen that there is demand for having samples tested for certain viruses fast. This often concerns TSWV, INSV and PepMV. Naktuinbouw has the facilities to enable such limited-scope diagnoses to be carried out rapidly, so that the person submitting the sample will often get the results within one day.

Fees for diagnosis

	Method	Test rate
Standard diagnosis, first sample	Depending on disease	€ 269,00
Each additional sample		€ 125,00
Limited diagnosis, first sample	Visual or other limited research	€ 211,00
Each additional sample		€ 125,00
Testing for up to 5 viruses, first sample	ELISA	€ 144,00
Each additional sample		€ 66,50
Testing for up to 10 viruses, first sample	ELISA	€ 172,00
Each additional sample		€ 91,00
PCR testing per sample ¹	PCR	€ 120,00
Sequentie analyse (such as Minion)	Sequencing	€ 489,00
Fee per hour for additional work (if needed)		€ 157,00
Verification test (if applicable)		€ 41,80

	Method	Basic test ¹	Agglutination	Confirmation PCR
<i>Erwinia amylovora</i>	Culture	€ 187,00	€ 52,50	€ 69,50
<i>Phytophthora fragariae</i>	Visual determination	€ 166,00		
<i>Xanthomonas arboricola pv. pruni</i>	Culture	€ 204,00		€ 118,00
<i>Xanthomonas fragariae</i>	Culture	€ 154,00		€ 118,00

- * The fee for any succeeding additional sample only applies to samples of the same assignment and same crop.
- * If an assignment is clearly so extensive that additional costs must be incurred it cannot possibly be done for these fees, we will contact you in advance.
- * Extra costs for additional services provided, such as sampling or transport, will be charged invoiced.

¹ An extra PCR test is carried out when final identification of a pathogen is needed.

Testing for Nematodes

Nematodes can seriously harm crops. Preventative testing of the soil, seeds and plant material can prevent this. Naktuinbouw offers testing for various plant-parasitic nematodes which may harm your crops. For example, the presence of Xiphinema and Longidorus species in soil may be demonstrated as part of the Elite certification procedure for strawberries.

Onion sets, or seed, can only be marketed if accompanied by a statement that the onion sets or the seed in question are free from stem nematode (*Ditylenchus dipsaci*). Other crops also require a statement that they are free from nematode when exported to certain destinations. Naktuinbouw can help you with this. If you would like further information, please contact the Laboratories Administration Team.

Test fee

All fees are excluding sampling. The customer has to take care of sampling or you can ask Naktuinbouw to do this for you. You can contact Naktuinbouw Inspections Department to take samples for certification purposes.

Lead time

The mentioned test time is the time between start of the test till sending of the certificate. The waiting time till start of the test will be maximal 3 weeks. In exceptional cases (e.g. large demand of tests) it might deviate.

Standard tests on soil	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate)
<i>Ditylenchus</i> spp.	Oostenbrink	4	1,5 liter	DITYO000	€ 83,00
<i>Ditylenchus dipsaci</i>	Oostenbrink	4	1,5 liter	DITY-DIO000	€ 83,00
<i>Meloidogyne chitwoodii</i>	Oostenbrink	4	200 ml	MELO-CHO000	€ 83,00
	Oostenbrink and incubation	18	200 ml	MELO-CHO000INC	€ 140,00
<i>Meloidogyne fallax</i>	Oostenbrink	4	200 ml	MELO-FAO000	€ 83,00
	Oostenbrink and incubation	18	200 ml	MELO-FAO000INC	€ 140,00
<i>Meloidogyne hapla</i>	Oostenbrink	4	200 ml	MELO-HAO000	€ 83,00
	Oostenbrink and incubation	18	200 ml	MELO-HAO000INC	€ 140,00
<i>Meloidogyne naasi</i>	Oostenbrink	4	200 ml	MELO-NAO000	€ 83,00
	Oostenbrink and incubation	18	200 ml	MELO-NAO000INC	€ 140,00
<i>Meloidogyne minor</i>	Oostenbrink	4	200 ml	MELO-MIO000	€ 83,00
	Oostenbrink and incubation	18	200 ml	MELO-MIO000INC	€ 140,00
<i>Pratylenchus</i> spp.	Oostenbrink	4	200 ml	PRATO000	€ 83,00
Verification <i>Pratylenchus</i> spp. by NPPO	External				€ 146,00
<i>Pratylenchus crenatus</i>	Oostenbrink	4	200 ml	PRAT-CRO000	€ 83,00
<i>Pratylenchus fallax</i>	Oostenbrink	4	200 ml	PRAT-FAO000	€ 83,00
<i>Pratylenchus neglectus</i>	Oostenbrink	4	200 ml	PRAT-NEO000	€ 83,00
<i>Pratylenchus penetrans</i>	Oostenbrink	4	200 ml	PRAT-PEO000	€ 83,00
<i>Pratylenchus vulnus</i>	Oostenbrink	4	200 ml	PRAT-VUO000	€ 83,00
<i>Radopholus</i> spp.	Oostenbrink	4	200 ml	RADOO000	€ 69,00
			300 ml	RADOO300	€ 69,00
Combination tests:					
<i>Meloidogyne chitwoodii</i> and <i>M. fallax</i>	Oostenbrink	4	200 ml	COMBIMMO000	€ 83,00
Plant parasitic nematods	Oostenbrink	16	200 ml	COMBINEMAGROND	€ 146,00
<i>Longidorus</i> and <i>Xyphinema</i>	Oostenbrink	4	200 ml	COMBIXLO000	€ 54,50

Standard tests on plantmaterial / water	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate)
Aphelenchoides spp.	Mist method	5	25 gram	APHEM	€ 46,00
Aphelenchoides fragariae	Mist method	5	25 gram	APHE-FRM	€ 46,00
Aphelenchoides ritzemabosi	Mist method	5	25 gram	APHE-RIM	€ 46,00
Aphelenchoides subtenuis	Mist method	5	25 gram	APHE-SUM	€ 46,00
Ditylenchus spp.	Mist method	5	25 gram	DITYM	€ 46,00
Ditylenchus destructor	Mist method	5	25 gram	DITY-DEM	€ 46,00
Ditylenchus dipsaci	Mist method	5	25 gram	DITY-DIM	€ 46,00
		3	60 bulbs onion	DITY-DIM060U	€ 46,00
		3	60 bulbs garlic	DITY-DIM060K	€ 46,00
		3	200 cloves garlic	DITY-DIM200K	€ 46,00
		3	400 bulbs onion sets	DITY-DIM400P	€ 46,00
Meloidogyne spp.	Mist method	5	25 gram	MELOM	€ 46,00
Verification Meloidogyne spp. by NPPO	External				€ 146,00
Meloidogyne chitwoodii	Mist method	5	25 gram	MELO-CHM	€ 46,00
		19	25 gram	MELO-CHMINC	€ 103,00
Meloidogyne fallax	Mist method	5	25 gram	MELO-FAM	€ 46,00
		19	25 gram	MELO-FAMINC	€ 103,00
Meloidogyne hapla	Mist method	5	25 gram	MELO-HAM	€ 46,00
		19	25 gram	MELO-HAMINC	€ 103,00
Meloidogyne naasi	Mist method	5	25 gram	MELO-NAM	€ 46,00
		19	25 gram	MELO-NAMINC	€ 103,00
Meloidogyne minor	Mist method	5	25 gram	MELO-MIM	€ 46,00
		19	25 gram	MELO-MIMINC	€ 103,00
Pratylenchus spp.	Mist method	5	25 gram	PRATM	€ 46,00
Verification Pratylenchus spp. by NPPO	External				€ 146,00
Pratylenchus crenatus	Mist method	5	25 gram	PRAT-CRM	€ 46,00
Pratylenchus fallax	Mist method	5	25 gram	PRAT-FAM	€ 46,00
Pratylenchus neglectus	Mist method	5	25 gram	PRAT-NEM	€ 46,00
Pratylenchus penetrans	Mist method	5	25 gram	PRAT-PEM	€ 46,00
Pratylenchus vulnus	Mist method	5	25 gram	PRAT-VUM	€ 46,00
Radopholus similis	Mist method	5	10 gram	RADO-SIC	€ 69,00
			60 gram	RADO-SIC060	€ 207,00
			50 ml water	RADO-SIO000W	€ 69,00
Combination tests:					
Meloidogyne chitwoodii and M. fallax	Mist method	4	25 gram	COMBIMMM	€ 46,00
Plant parasitic nematods	Mist method	5	25 gram	COMBINEMAPLANT	€ 109,00

Standard tests on seed	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate)
Aphelenchoides spp.	Mist method	5	30,000 seeds	APHEM300	€ 46,00
Aphelenchoides fragariae	Mist method	5	30,000 seeds	APHE-FRM300	€ 46,00
Aphelenchoides ritzemabosi	Mist method	5	30,000 seeds	APHE-RIM300	€ 46,00
Aphelenchoides subtenuis	Mist method	5	30,000 seeds	APHE-SUM300	€ 46,00
Ditylenchus spp.	Mist method	5	30,000 seeds	DITYM300	€ 46,00
Ditylenchus destructor	Mist method	5	30,000 seeds	DITY-DEM300	€ 46,00
Ditylenchus dipsaci	Mist method	5	30,000 seeds	DITY-DIM300	€ 46,00
Combination tests:					
<i>Aphelenchoides and Ditylenchus</i>	Mist method	5	30,000 seeds	COMBIAD300	€ 63,00

Other	Rate
Fee per hour for extra research (if needed)	€ 144,00
Surcharge urgency fee	€ 83,00
Alteration on a Naktuinbouw certificate	€ 37,10
In case sampling is carried out by Naktuinbouw, sampling costs will be charged by the Department of Inspections	

Virus test methodes

A quick test is available for some about 70 viruses in floricultural and arboricultural crops: the ELISA. This technique can be used routinely and gives quick results. produces results fast. ELISA is a robust technique with reliable results and a relatively low cost price compared to other techniques. Testing with indicator plants or PCR is also possible. These tests are only carried out on leaf material. Tissue culture plants show a reduced sensitivity in the ELISA.

Lead time

The mentioned test time is the time between start of the test till sending of the certificate. The waiting time till start of the test will be maximal 2 weeks. In exceptional cases (e.g. large demand of tests) it might deviate.

Fees for ELISA tests

You can test for the viruses below. If a virus has a changed name, the old name is stated behind in brackets ³

AICV (LSV), AIMV, AitMV, AMV, AnFBV (AFMoV), ArMV, BBWV 1&2, BWYV, BYMV, CarMV, CbMV, CERV, CLV, CMV, CNFV, CRSV, CSNV, CVB, CVMV, CymMV, EMDV, ErLV, HdRSV, HVX, INSV, IYSV, KLV, KMV, ORSV, OYDV, PEBV, PepMV, PFBV, PLPV, PMMoV, PnMV, PNRSV, Potyvirus ⁴, PVX, PVY, RMV, ScrMV, SFBV, SLRSV, SLV, SYNIV, TAV, TBRV, TBSV, TMGMV, TMV-WU1, TNV1, TNV2, ToMV-DO3, ToRSV, TRSV, TRV, TSV, TSWV, TYMV

Test time ELISA tests:	4 days
Waiting time ELISA tests:	maximal 2 weeks. In exceptional cases (e.g. large demand of tests) it might
Fee per ELISA determination:	€ 2,90
Sample size:	1-2 leaves/cuttings, in total ca. 4 cm ²

³ Some virus tests can also detect other viruses in ELISA:

Virus test	Also detects
RMV	TVCV, YoMV
ScrMV	NeRNV
TBSV	PLCV, PetAMV
TYMV	WWVV

⁴ If you provide material for testing on poty virus, please send double the amount of material as this is required to process the specimen.

Other tests

Virus ,viroids and phytoplasm tests

Plant material can be tested for the presence of viruses, viroids or phytoplasms, using the latest new molecular techniques.

Fungal tests

Fungal tests Testing for fungi is are usually done by a plating method, combined with identification by microscope. New DNA techniques are used for sensitive detection of e.g. *Fusarium* species in begonia. Fungal tests Testing for fungi can also be done on soil samples, e.g. for *Verticillium dahliae* and *Fusarium oxysporum* spp.

Bacterial

Seed and plant material can be tested for the presence of bacterial diseases. Some of the methods used are: plating on semi selective media, pathogenicity tests, immunofluorescence (IF) and PCR.

Viruses, Viroids and Phytoplasma	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate)
Alfalfa mosaic virus (AMV)	PCR	4	Max. 25 bladeren	AMVQ	€ 50,50
Apple chlorotic leaf spot virus (ACLSV)	PCR	4	Max. 10 stem parts or 25 leaves	ACLSVQ	€ 50,50
Apple mosaic virus (ApMV)	PCR	4	Max. 10 stem parts or 25 leaves	APMVQ	€ 50,50
Apple viruses (ApMV ACLSV ASGV ASPV)	PCR	4	Max. 10 stem parts or 25 leaves	COMBI APPEL PCR	€ 62,00
Apple proliferation phytoplasma group	PCR	4	Max. 12 root parts	MLOQ	€ 50,50
Arabis mosaic virus (ArMV)	PCR	4	Max. 25 leaves	ARMVQ	€ 50,50
ArMV, FreMV and TRV	PCR	4	Max. 25 leaves	COMBIAFTQ	€ 73,50
Bacopa chlorosis virus (BaCV)	PCR	4	Max. 25 leaves	BACVQ	€ 50,50
Broad bean wilt virus (BBWV1,2)	PCR	4	Max. 25 leaves	BBWVQ	€ 50,50
Cherry leaf roll virus (CLRV)	PCR	4	Max. 25 leaves	CLRVQ	€ 50,50
Chrysanthemum chlorotic mottle viroid (CChMVd)	PCR	4	Max. 25 leaves	CCHMVDP	€ 50,50
Chrysanthemum stunt viroid (CSVd)	PCR	4	Max. 25 leaves	CSVDP	€ 50,50
CSVd and CChMVd	PCR	4	Max. 25 leaves	COMBICSVDCCHMVd	€ 50,50
CSVd and CChMVd	PCR	4	Max. 25 leaves	COMBICSVDCCHMVd	€ 50,50
Cucumber mosaic virus (CMV)	PCR	4	Max. 25 leaves	CMVQ	€ 50,50
CymMV and ORSV	PCR	4	Max. 25 leaves	COMBICOQ	€ 50,50
Orchid fleck virus (OFV)	PCR	4	Max. 25 leaves	OFVP	€ 50,50
CymMV, INSV and ORSV	PCR	4	Max. 25 leaves	COMBICIOQ	€ 62,00
CymMV, ORSV and OFV	PCR	4	Max. 25 leaves	COMBICOOQ	€ 62,00
CymMV, ORSV, OFV and ToRSV	PCR	4	Max. 25 leaves	COMBICOOTQ	€ 73,50
Dahlia mosaic virus species complex (DMV / DCMV)	PCR	4	Max. 25 leaves	DMVQ	€ 50,50
Freesia viruses FreMV, FreSV, BYMV and FreV1	PCR	4	Max. 50 leaves	COMBIFFBFQ	€ 50,50
			Max. 75 - 150 leaves	COMBIFFBFQ000	€ 152,00
Impatiens necrotic spot virus (INSV)	PCR	4	Max. 25 leaves	INSVQ	€ 50,50
Helleborus net necrosis virus and Helleborus mosaic virus (HeNNV and HEMV)	PCR	4	Max. 25 leaves	COMBIHHQ	€ 50,50
Hosta virus X (HVX)	PCR	4	Max. 25 leaves	HVXQ	€ 50,50
Necrotische-kringvlekkenvirus (PNRSV)	PCR	4	Max. 25 leaves	PNRSVQ	€ 50,50
Nerine virus X (NVX)	PCR	4	Max. 25 leaves	NVXQ	€ 50,50
Plum pox virus (PPV)	PCR	4	stem material	PPVP	€ 50,50
Prune dwarf virus (PDV)	PCR	4	Max. 25 leaves	PDVQ	€ 50,50
Prunus necrotic ringspot virus (PNRSV) and Prune dwarf virus (PDV)	PCR	4	Max. 25 leaves	COMBIPPQ	€ 50,50
PDV, PNRSV and PPV	PCR	4	Max. 25 leaves	COMBIPPPQ	€ 62,00
Raspberry ringspot virus (RpRSV)	PCR	4	Max. 25 leaves	RPRSVQ	€ 50,50
Tobacco rattle virus (TRV)	PCR	4	Max. 25 leaves	TRVQ	€ 50,50
Tobacco rattle virus (TRV) and Cucumber mosaic virus (CMV)	PCR	4	Max. 25 leaves	COMBICTQ	€ 62,00
Tobacco streak virus (TSV)	PCR	4	Max. 25 leaves	TSVQ	€ 50,50
Tobacco ringspot virus (TRSV)	PCR	4	Max. 25 leaves	TRSVQ	€ 50,50
Tobacco ringspot virus (TRSV) confirmation by NPPO	External				€ 146,00
Tomato ringspot virus (ToRSV)	PCR	4	Max. 25 leaves	TORSVQ	€ 50,50
Tomato ringspot virus (ToRSV) confirmation by NPPO	External				€ 146,00
Tobacco ringspot virus (TRSV) and Tomato ringspot virus (ToRSV)	PCR	4	Max. 25 leaves	COMBITTQ	€ 62,00
Tomato spotted wilt virus (TSWV)	PCR	4	Max. 25 leaves	TSWVQ	€ 50,50
Tomato black ring virus (TBRV)	PCR	4	Max. 25 leaves	TBRVQ	€ 50,50
Verbena latent virus (VeLV)	PCR	4	Max. 25 leaves	VELVQ	€ 50,50
PSTVd, TCDVd, TPMVd	PCR	4	Max. 25 leaves	PSTVD	€ 50,50
Pospiviroids (CEVd, CLVd, CSVd, IrVd1, PCFVd, PoIVd, PSTVd, TASVd, TCDVd, TPMVd)	PCR	4	Max. 25 leaves	POSPIP	€ 65,50
			Max. 200 leaves	POSPIQSCR	€ 90,50
Phytoplasma, for material without symptoms	PCR, incl. possible confirmation PCR	4	Max. 5 stem parts, root parts or leaf vein	FYTOQ000	€ 50,50

Fungi	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate)
<i>Colletotrichum</i> spp.	Culture method, incl. possible microscopic confirmation	9	200 seeds	CSF002	€ 113,00
<i>Fusarium foetens</i> , for material without symptoms	Culture method, incl. possible confirmation PCR	12	Max. 5 stem parts	FFA000	€ 93,50
<i>Fusarium oxysporum</i>	Culture method, incl. possible microscopic confirmation	10	Max. 6 stem parts	FOA000	€ 66,50
<i>Phytophthora ramorum</i>	PCR	4	Max. 20 leaves	PRQ000	€ 50,50
<i>Phytophthora ramorum</i> confirmation by NPPO	External				€ 146,00
<i>Phytophthora ramorum</i> and <i>P. kernoviae</i>	PCR	4	Max. 20 leaves	COMBIPRKQ000	€ 62,00
<i>Phytophthora rubi</i>	PCR	4	Max. 150 gram roots	PRUQ000	€ 76,00
<i>Phytophthora fragariae</i>	PCR	4	Max. 150 gram roots	PFQ000	€ 76,00
<i>Verticillium dahliae</i>	Culture method	14	Max. 5 stem parts	VDA000	€ 63,00
		25	2 - 2.5 litre soil	VDAHLA000	€ 138,00
<i>Verticillium</i> species	Culture method	15	5 stem pieces	VSA000	€ 63,00
Bacteria					
<i>Agrobacterium tumefaciens</i>	Culture method, incl. possible confirmation PCR	7	0,5 liter water	ATUMP	€ 113,00
	PCR	4	Max. 5 stem parts	ATUMQ	€ 50,50
<i>Rhodococcus fascians</i>	PCR	4	Max. 10 stem parts	RFASQ	€ 50,50
<i>A. tumefaciens</i> and <i>R. fascians</i>	PCR	4	Max. 5 stem parts	COMBIAFQ	€ 62,00
<i>Erwinia chrysanthemi</i>					Upon request
<i>Erwinia amylovora</i> (latent)	Culture method, incl. possible confirmation PCR and agglutination	11	100 twigs	ERAMYS000	€ 110,00
<i>Ralstonia solanacearum</i>	Culture method, incl. possible confirmation PCR	12	Max. 5 stem parts	RSOLA	€ 54,00
			0,5 liter water	RSOLA	€ 54,00
			Max. 200 stem parts	RSOLA	€ 54,00
<i>Ralstonia solanacearum</i> confirmation by NPPO	External				€ 146,00
<i>Xanthomonas axonopodis</i> pv. <i>begoniae</i>	PCR	4	Max. 2 leaves	XABEGQ	€ 50,50
			Max. 20 leaves	XABEGQ000	€ 76,00
<i>Xanthomonas axonopodis</i> pv. <i>dieffenbachiae</i> Anthurium	PCR	4	Max. 5 leaves+leaf stems	XADIEQ	€ 50,50
	PCR	4	Max. 25 leaves+leaf stems	XADIEQ000	€ 76,00
<i>Xanthomonas campestris</i> pv. <i>lobeliae</i>					Upon request
<i>Xanthomonas hortorum</i> pv. <i>pelargonii</i>					Upon request
<i>Xylella fastidiosa</i>	PCR	4	100 to 200 leaves or twigs	XYLEFAQ000	€ 191,00
<i>Xylella fastidiosa</i> confirmation by NPPO	External				€ 146,00
Other					Rate
Fee per hour for extra research (if needed)					€ 136,00
Urgency fee					€ 83,00
Alteration on a Naktuinbouw certificate					€ 37,10
Samples tested by Netherlands Food and Consumer Product Safety Authority (NPPO)					€ 231,00

Health Testing of Vegetable Crops

Testing for bacteria and phytoplasmas

Seed and plant material can be tested for the presence of bacterial diseases and phytoplasmas. Methods that are used are e.g., plating, pathogenicity tests and PCR.

Testing for fungi

Testing for fungi is usually done by a plating method, combined with identification by microscope. New DNA techniques are used for sensitive detection of e.g. *Fusarium* species. Testing for fungi can also be done on

Virus tests and viroids

Plant material and/or seed can be tested for the presence of viruses or viroids, using molecular techniques or ELISA.

Lead time

The mentioned test time is the time between start of the test till sending of the certificate. The waiting time till start of the test will be maximal 3 weeks. In exceptional cases (e.g. large demand of tests) it might deviate.

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Asparagus					
Pathogene <i>Fusarium</i> spp. for asparagus	Culture method, incl. possible microscopic confirmation and pathogenicity test	40	300 seeds	FOAA003	€ 381,00
	Bio-assay	50	2.5 - 5 liter soil	FOAB000	€ 155,00
Asparagus virus 1 (AV1)	ELISA	4	10 x 10 leaves	AV1E000	€ 28,70
Aubergine					
<i>Vertillium dahliae</i>	Culture method	14	200 seeds	VDA002	€ 130,00
Arabis mosaic virus (ArMV)	PCR	4	3,000 seeds	ARMVQ030	€ 184,00
Pepino mosaic virus (PepMV)	ELISA	4	3,000 seeds	PEPMVE030	€ 155,00
			4,750 seeds	PEPMVE048	€ 311,00
Tobacco rattle virus (TRV)	PCR	4	3,000 seeds	TRVQ030	€ 184,00
Tobacco ringspot virus (TRSV)	PCR	4	3,000 seeds	TRSVQ030	€ 184,00
Tobacco streak virus (TSV)	PCR	4	3,000 seeds	TSVQ030	€ 184,00
Tomato black ring virus (TBRV)	PCR	4	3,000 seeds	TBRVQ030	€ 184,00
Tomato ringspot virus (ToRSV)	PCR	4	3,000 seeds	TORSVQ030	€ 184,00
Tomato yellow leaf curl virus (TYLCV)	PCR	4	3,000 seeds	TYLCVQ030PA	€ 184,00
Pospiviroids (CEVd, CLVd, MPVd, PCFVd, PSTVd, TASVd, TCDVd and TPMVd)	PCR	4	3,000 seeds	COMBIPOSPIQ030PA	€ 253,00
			4,800 seeds (12 x 400)	COMBIPOSPIQ048PA	€ 670,00
			20,000 seeds (50 x 400)	COMBIPOSPIQ200PA	€ 2.950,00
Combi ArMV and TBRV	PCR	4	3,000 seeds	COMBITAQ030	€ 218,00
Combi ArMV and TRSV	PCR	4	3,000 seeds	COMBIATQ030	€ 218,00
Combi TBRV and ToRSV	PCR	2	3,000 seeds	COMBITBTOQ030	€ 218,00
Combi ToRSV and TRSV	PCR	2	3,000 seeds	COMBITOTRQ030	€ 218,00
Combi ArMV, TBRV and TRSV	PCR	4	3,000 seeds	COMBIATTQ030	€ 253,00
Basil					
<i>Fusarium oxysporum</i>	Culture method	22	200 seeds	FOA002BA	€ 130,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Bean					
<i>Xanthomonas axonopodis</i> pv. <i>phaseoli</i> and <i>Xanthomonas fuscans</i> subsp. <i>fuscans</i>	Culture method, incl. possible confirmation PCR	15	5,000 seeds	XAXFA050	€ 218,00
			30,000 seeds	XAXFA300	€ 530,00
<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> (PSP)	Culture method, incl. possible confirmation PCR	12	5,000 seeds	PSPA050	€ 218,00
<i>Pseudomonas syringae</i> pv. <i>syringae</i> (PSS)	Culture method, incl. possible confirmation PCR	14	5,000 seeds	PSSA050	€ 218,00
			30,000 seeds	PSSA300	€ 530,00
<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> <i>Curtobacterium flaccumfaciens</i> pv. <i>Flaccumfaciens</i> confirmation by NPPO	Bio-assay, incl. possible confirmation PCR	15	5,000 seeds	CFFA050	€ 253,00
	External				€ 146,00
Combination tests XAXF - PSP – PSS					
PSS - PSP	Culture method, incl. possible confirmation PCR	14	5,000 seeds	COMBIPPA050	€ 385,00
			10,000 seeds	COMBIPPA100	€ 437,00
XAXF - CFF	Culture method, incl. possible confirmation PCR	14	5,000 seeds	COMBIXCA050	€ 420,00
PSS - XAXF	Culture method, incl. possible confirmation PCR	14	5,000 seeds	COMBIPXA050	€ 385,00
XAXF - PSP	Culture method, incl. possible confirmation PCR	14	5,000 seeds	COMBIXPA050	€ 385,00
			10,000 seeds	COMBIXPA100	€ 437,00
XAXF - PSP – PSS	Culture method, incl. possible confirmation PCR	14	5,000 seeds	COMBIXPPA050	€ 550,00
			10,000 seeds	COMBIXPPA100	€ 630,00
			30,000 seeds	COMBIXPPA300	€ 860,00
XAP/XFF - PSP - CFF	Culture method, incl. possible confirmation PCR	14	5,000 zaden	COMBIXPCA050	€ 640,00
XAXF - PSP - PSS - CFF	Culture method, incl. possible confirmation PCR	15	5,000 seeds	COMBIXPPCA050	€ 780,00
Ascochyta spp.					
<i>Ascochyta</i> spp.	Culture method, incl. possible microscopic confirmation	11	200 seeds	ASSA002	€ 130,00
<i>Colletotrichum lindemuthianum</i>	Culture method, incl. possible microscopic confirmation	9	200 seeds	CLF002	€ 113,00
Bean common mosaic virus (BCMV)					
Bean common mosaic virus (BCMV)	ELISA	4	400 seeds	BCMVE004	€ 385,00
Beetroot					
<i>Heterodera schachtii</i>			100 gram seeds	Tested at NPPO	€ 231,00
<i>Phoma betae</i>	Culture method, incl. possible microscopic confirmation	9	200 seeds	PBA002	€ 130,00
			400 seeds	PBA004	€ 260,00
			1,000 seeds	PBA010	€ 375,00
Arabis mosaic virus (ArMV)	PCR	4	3,000 seeds	ARMVQ030	€ 184,00
Tobacco rattle virus (TRV)	PCR	4	3,000 seeds	TRVQ030	€ 184,00
Tobacco streak virus (TSV)	PCR	4	3,000 seeds	TSVQ030	€ 184,00
Tomato black ring virus (TBRV)	PCR	4	3,000 seeds	TBRVQ030	€ 184,00
Tomato yellow leaf curl virus (TYLCV)	PCR	4	3,000 seeds	TYLCVQ030PA	€ 184,00
Combi ArMV and TBRV	PCR	4	3,000 seeds	COMBITAQ030	€ 218,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Cabbage and Radish					
<i>Pseudomonas syringae</i> pv. <i>maculicola</i> (PSM)	Culture method, incl. possible confirmation PCR	15	2,500 untreated seeds	PSMA025	€ 218,00
			7,500 untreated seeds	PSMA075	€ 218,00
			10,000 untreated seeds	PSMA100-4SUBS	€ 218,00
			10,000 treated seeds	PSMA100B	€ 287,00
			30,000 treated seeds	PSMA300B	€ 356,00
	SE-PCR	4	10,000 seeds	PSMQ100	€ 184,00
			30,000 seeds	PSMQ300	€ 230,00
Combination tests: <i>Xanthomonas campestris</i> pv. <i>raphani</i> (XCR) and <i>Xanthomonas campestris</i> pv. <i>campestris</i> (XCC) and <i>Pseudomonas syringae</i> pv. <i>maculicola</i> (PSM) (XCR synonym: <i>Xanthomonas campestris</i> pv. <i>armoraciae</i> (XCA))					
Combination test XCA - XCC (untreated seeds)	Culture method, incl. possible confirmation PCR and pathogenicity test	32	10,000 untreated seeds	XXAS100	€ 218,00
			30,000 untreated seeds	XXAS300	€ 287,00
			50,000 untreated seeds	XXAS500	€ 530,00
			100,000 untreated seeds	XXAS1000	€ 1.010,00
	SE-PCR	4	10,000 seeds untreated seeds	COMBIXXQ100	€ 218,00
			30,000 seeds untreated seeds	COMBIXXQ300	€ 264,00
			50,000 seeds untreated seeds	COMBIXXQ500	€ 472,00
Combination test XCA and XCC (seeds treated with warm water)	Culture method, incl. possible confirmation PCR and pathogenicity test	32	10,000 treated seeds	XXAS100B	€ 287,00
			30,000 treated seeds	XXAS300B	€ 356,00
			50,000 treated seeds	XXAS500B	€ 590,00
			100,000 treated seeds	XXAS1000B	€ 1.080,00
Combination test XCA, XCC and PSM	Culture method, incl. possible confirmation PCR and pathogenicity test	32	10,000 treated seeds	COMBIXXPAS100B	€ 368,00
			30,000 treated seeds	COMBIXXPAS300B	€ 437,00
	SE-PCR	4	10,000 seeds untreated seeds	COMBIXXPQ100	€ 299,00
	SE-PCR	4	30,000 seeds untreated seeds	COMBIXXPQ300	€ 299,00
<i>Alternaria japonica</i>	Culture method	11	200 seeds	AJA002	€ 130,00
<i>Phoma lingam</i>	Culture method	26	400 seeds	PLF004	€ 172,00
			1,000 seeds	PLF010	€ 275,00
			3,000 seeds	PLF030	€ 481,00
<i>Plasmodiophora brassicae</i>	Bio-assay	44	2.5 liter soil	PLBKB000	€ 155,00
			200 seeds	PLBKB001	#N/B
<i>Alternaria brassicae</i> and <i>Alternaria brassicicola</i>	Culture method, incl. possible microscopic confirmation	12	200 seeds	COMBIABBA002	€ 188,00
			400 seeds	COMBIABBA004	€ 317,00
<i>Verticillium</i> sp.	Culture method	13	200 seeds	VSF002KS	€ 113,00
Carrot					
<i>Candidatus liberibacter solanacearum</i>	SE-PCR	4	10.000 seeds	CLSQ100	€ 184,00
			20.000 seeds	CLSQ200	€ 230,00
			30.000 seeds	CLSQ300	€ 230,00
			50.000 seeds	CLSQ500	€ 437,00
<i>Xanthomonas hortorum</i> pv. <i>carotae</i>	Culture method, incl. possible confirmation PCR	17	10,000 seeds	XHCARA100	€ 218,00
			20,000 seeds	XHCARA200	€ 287,00
<i>Alternaria dauci</i>	Culture method	12	200 seeds	ALDF002	€ 113,00
<i>Alternaria radicina</i>	Culture method	12	200 seeds	ALRF002	€ 113,00
<i>Alternaria dauci</i> and <i>Alternaria radicina</i>	Culture method	12	200 seeds	COMBIAAF002	€ 172,00
			400 seeds	COMBIAAF004	€ 229,00
<i>Fusarium oxysporum</i>	Culture method, incl. possible microscopic confirmation	22	200 seeds	9-FOA002	€ 258,00
<i>Phoma</i> sp.	Culture method, incl. possible microscopic confirmation	18	200 seeds	9-PSF002	€ 125,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Celery					
<i>Candidatus liberibacter solanacearum</i>	SE-PCR	4	10,000 seeds	CLSQ100	€ 184,00
			20,000 seeds	CLSQ200	€ 230,00
			30,000 seeds	CLSQ300	€ 230,00
			50,000 seeds	CLSQ500	€ 437,00
<i>Phoma apiicola</i>	Culture method, incl. possible microscopic confirmation	45	1,000 seeds	PAF010	€ 275,00
<i>Septoria apiicola</i>	Culture method, incl. possible microscopic confirmation	9	200 seeds	SAF002	€ 113,00
			400 seeds	SAF004	€ 172,00
<i>Septoria apiicola</i>	Soaking	4	10,000 seeds	SAAF100	€ 69,00
			20,000 seeds	SAAF200	€ 138,00
Strawberry latent ringspot virus (SLRSV)	ELISA	4	3,000 seeds	SLRSVE030	€ 155,00
Chives					
<i>Pseudomonas syringae</i> pv. <i>porri</i>	Culture method, incl. possible confirmation PCR	14	5,000 seeds	PSPOA050	€ 205,00
Cucurbitaceae					
<i>Acidovorax citrulli</i> - grow out (performed with treated seeds)	Bio-assay, incl. possible confirmation PCR	30	10,000 seeds	ACB100	€ 446,00
			20,000 seeds	ACB200	€ 1.230,00
			30,000 seeds	ACB300	€ 1.230,00
<i>Acidovorax citrulli</i> - grow out (with additional costs for treatment by Naktuinbouw)	Bio-assay, incl. possible confirmation PCR	30	10,000 seeds	ACB100+O	€ 520,00
			20,000 seeds	ACB200+O	€ 1.300,00
			30,000 seeds	ACB300+O	€ 1.300,00
<i>Acidovorax citrulli</i> confirmation bio-assay		16			€ 138,00
<i>Acidovorax citrulli</i> (untreated seeds only) If positive a grow out is recommended to confirm	SE-PCR	4	10,000 seeds	ACQ100	€ 230,00
			20,000 seeds	ACQ200	€ 460,00
			30,000 seeds	ACQ300	€ 460,00
			40,000 seeds	ACQ400	€ 810,00
			50,000 seeds	ACQ500	€ 810,00
			60,000 seeds	ACQ600	€ 810,00
<i>Pseudomonas syringae</i> pv. <i>lachrymans</i>	SE-PCR	4	10,000 seeds	PSLQ100	€ 230,00
<i>Xanthomonas cucurbitae</i>			10,000 seeds	XCQ100	€ 230,00
<i>Acidovorax citrulli</i> and <i>Pseudomonas syringae</i> pv. <i>lachrymans</i>	SE-PCR	4	10,000 seeds	COMBIAPQ100	€ 264,00
<i>Acidovorax citrulli</i> and <i>Xanthomonas cucurbitae</i>	SE-PCR	4	10,000 seeds	COMBIAXQ100	€ 264,00
<i>Xanthomonas cucurbitae</i> and <i>Pseudomonas syringae</i> pv. <i>lachrymans</i>	SE-PCR	4	10,000 seeds	COMBIPXQ100	€ 264,00
<i>Acidovorax citrulli</i> , <i>Pseudomonas syringae</i> pv. <i>lachrymans</i> and <i>Xanthomonas cucurbitae</i>	SE-PCR	4	10,000 seeds	COMBIAPXQ100	€ 299,00
<i>Alternaria cucumerina</i>	Culture method, incl. possible confirmation PCR	9	200 seeds	9-ACA002	€ 143,00
<i>Colletotrichum orbiculare</i>	Culture method, incl. possible microscopic confirmation	15	200 seeds	COF002	€ 113,00
<i>Fusarium oxysporum</i> and <i>Fusarium solani</i>	Culture method, incl. possible microscopic confirmation	22	200 seeds	FOSA002	€ 188,00
<i>Verticillium dahliae</i>	Culture method	15	200 seeds	VDA002	€ 130,00
			400 seeds	VDA004	€ 260,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Cucurbitaceae (continued)					
Arabis mosaic virus (ArMV)	ELISA	4	2,000 seeds	ARMVE020	€ 270,00
Cucumber green mottle mosaic virus (CGMMV)	ELISA	4	300 leaves	CGMMVE000	€ 60,00
			2,000 seeds	CGMMVE020	€ 270,00
			4,000 seeds	CGMMVE040	€ 540,00
			6,000 seeds	CGMMVE060	€ 810,00
			8,000 seeds	CGMMVE080	€ 1.080,00
			9,400 seeds	CGMMVE100	€ 1.350,00
	Bio-assay	19	2,000 seeds	CGMMVB020	€ 311,00
			4,000 seeds	CGMMVB040	€ 630,00
Cucumber leaf spot virus (CLSV)	ELISA	4	1,000 seeds	CLSVE010	€ 270,00
Cucumber mosaic virus (CMV)	ELISA	4	2,000 seeds	CMVE020	€ 270,00
Kyuri green mottle mosaic virus (KGMMV)	ELISA	4	2,000 seeds	KGMMVE20	€ 270,00
			9,400 seeds	KGMMVE100	€ 1.350,00
Melon necrotic spot virus (MNSV)	ELISA	4	2,000 seeds	MNSVE020	€ 270,00
			9,400 seeds	MNSVE100	€ 1.350,00
Squash mosaic virus (SqMV)	ELISA	4	2,000 seeds	SQMVE020	€ 270,00
			8,000 seeds	SQMVE080	€ 1.080,00
Tomato ringspot virus (ToRSV); melon only	PCR	4	3,000 seeds	TORSVQ030	€ 184,00
Tobacco ringspot virus (TRSV); melon only	PCR	4	3,000 seeds	TRSVQ030	€ 184,00
Combi ToRSV and TRSV; melon only	PCR	4	3,000 seeds	COMBITOTRQ030	€ 218,00
Zucchini green mottle mosaic virus (ZGMMV)	ELISA	4	2,000 seeds	ZGMMVE020	€ 270,00
			4,600 seeds	ZGMMVE046	€ 425,00
			9,400 seeds	ZGMMVE100	€ 1.350,00
Zucchini yellow mosaic virus (ZYMV)	ELISA	4	2,000 seeds	ZYMVE020	€ 270,00
Combination tests: CGMMV, CMV, KGMMV, MNSV, SqMV, ZGMMV					
2 viruses:	ELISA	4	2,000 seeds		€ 351,00
			4,000 seeds		€ 630,00
			9,400 seeds		€ 1.430,00
3 viruses:	ELISA	4	2,000 seeds		€ 431,00
			4,000 seeds		€ 700,00
			6,000 seeds		€ 980,00
			8,000 seeds		€ 1.240,00
			9,400 seeds		€ 1.520,00
4 viruses:	ELISA	4	2,000 seeds		€ 510,00
			9,400 seeds		€ 1.590,00
5 viruses:	ELISA	4	2,000 seeds		€ 590,00
			9,400 seeds		€ 1.670,00
6 viruses :	ELISA	4	2,000 seeds		€ 670,00
Fennel					
<i>Candidatus liberibacter solanacearum</i>	SE-PCR	4	10,000 seeds	CLSQ100	€ 184,00
			20,000 seeds	CLSQ200	€ 230,00
			30,000 seeds	CLSQ300	€ 230,00
			50,000 seeds	CLSQ500	€ 437,00
Lambs Lettuce					
<i>Peronospora valerianellae</i>	Bio-assay	23	400 seeds	PVB004	€ 114,00
			1,200 seeds	PVB012	€ 311,00
<i>Peronospora valerianellae</i>	Soaking	4	1,000 seeds	PVAF010	€ 69,00
<i>Phoma valerianella</i>	Culture method, incl. possible microscopic confirmation	37	200 seeds	PVF002	€ 113,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Leek					
<i>Pseudomonas syringae</i> pv. <i>porri</i>	Culture method, incl. possible confirmation PCR	14	5,000 seeds	PSPOA050	€ 205,00
<i>Alternaria porri</i>	Culture method	12	200 seeds	APF002	€ 113,00
Lettuce					
<i>Fusarium oxysporum</i>	Culture method, incl. possible microscopic confirmation	22	200 seeds	FOA002SL	€ 130,00
<i>Septoria</i> spp.	Culture method, incl. possible microscopic confirmation	9	200 seeds	SSF002	€ 113,00
	Soaking	4	10,000 seeds	SSAF100	€ 69,00
<i>Verticillium</i> sp.	Culture	15	200 seeds	VSF002KS	€ 113,00
Arabis mosaic virus (ArMV)	PCR	4	3,000 seeds	ARMVQ030	€ 184,00
Lettuce mosaic virus (LMV)	ELISA	4	10,000 seeds	LMVE100	€ 167,00
			30,000 seeds	LMVE300	€ 398,00
Lettuce mosaicvirus (LMV) seedlings	ELISA	4	2,000 seeds	LMVE020	€ 159,00
			4,000 seeds	LMVEZAAI040	€ 314,00
			6,000 seeds	LMVE060	€ 314,00
			10,000 seeds	LMVEZAAI100	€ 470,00
Tobacco rattle virus (TRV)	PCR	4	3,000 seeds	TRVQ030	€ 184,00
Tobacco streak virus (TSV)	PCR	4	3,000 seeds	TSVQ030	€ 184,00
Tobacco ringspot virus (TRSV)	PCR	4	3,000 seeds	TRSVQ030	€ 184,00
Tomato black ring virus (TBRV)	PCR	4	3,000 seeds	TBRVQ030	€ 184,00
Tomato ringspot virus (ToRSV)	PCR	4	3,000 seeds	TORSVQ030	€ 184,00
Combi TBRV and ToRSV	PCR	2	3,000 seeds	COMBITBTOQ030	€ 218,00
Combi ToRSV and TRSV	PCR	2	3,000 seeds	COMBITOTRQ030	€ 218,00
Combi ArMV and TRSV	PCR	4	3,000 seeds	COMBIATQ030	€ 218,00
Combi ArMV and TBRV	PCR	4	3,000 seeds	COMBITAQ030	€ 218,00
Combi ArMV, TBRV and TRSV	PCR	4	3,000 seeds	COMBIATTQ030	€ 253,00
Onion					
<i>Botrytis allii</i>	Culture method	16	400 seeds	BAA004	€ 260,00
Arabis mosaic virus (ArMV)	PCR	4	3,000 seeds	ARMVQ030	€ 184,00
Onion yellow dwarf virus (OYDV)	ELISA	4	3,000 seeds	OYDVE030	€ 155,00
Tobacco rattle virus (TRV)	PCR	4	3,000 seeds	TRVQ030	€ 184,00
Tobacco streak virus (TSV)	PCR	4	3,000 seeds	TSVQ030	€ 184,00
Parsley					
<i>Candidatus liberibacter solanacearum</i>	SE-PCR	4	10,000 seeds	CLSQ100	€ 184,00
			20,000 seeds	CLSQ200	€ 230,00
			30,000 seeds	CLSQ300	€ 230,00
			50,000 seeds	CLSQ500	€ 437,00
<i>Septoria petroselini</i>	Culture method, incl. possible microscopic confirmation	9	200 seeds	SPF002	€ 113,00
			400 seeds	SPF004	€ 172,00
	Soaking	4	10,000 seeds	SPAF100	€ 69,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Pea					
<i>Pseudomonas syringae</i> pv. <i>pisii</i>	Culture method, incl. possible confirmation PCR	22	5,000 seeds	PSPIA050	€ 235,00
			15,000 seeds	PSPIA150	€ 304,00
<i>Ascochyta</i> spp.	Culture method, incl. possible microscopic confirmation	11	200 seeds	ASSA002	€ 130,00
			400 seeds	ASSA004	€ 260,00
Pea seed-borne mosaic virus (PSbMV)	ELISA	4	2,000 seeds	PSBMVE020	€ 270,00
Pea early browning virus (PEBV)	ELISA	4	2,000 seeds	PEBVE020	€ 270,00
Combination test PSbMV and PEBV	ELISA	4	2,000 seeds	COMBIPPE020	€ 351,00
Pepper					
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> (CMM)	Culture method, incl. possible confirmation PCR	35	10,000 seeds	CMMA100PA	€ 218,00
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> confirmation bio-assay		16			€ 138,00
<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> (XCV) = <i>X. gardneri</i> , <i>X. euvesicatoria</i> , <i>X. perforans</i> and <i>X. vesicatoria</i>	Culture method, incl. possible confirmation PCR	17	10,000 seeds	XCVA100PA	€ 205,00
			20,000 seeds	XCVA200PA	€ 273,00
			30,000 seeds	XCVA300PA	€ 273,00
			40,000 seeds	XCVA400PA	€ 520,00
			50,000 seeds	XCVA500PA	€ 520,00
			60,000 seeds	XCVA600PA	€ 520,00
CMM and XCV-group	Culture method, incl. possible confirmation PCR	35	10.000 seeds	COMBICXA100PA	€ 354,00
<i>Erwinia carotovora</i> subsp. <i>carotovora</i> Synonym: <i>Pectobacterium carotovorum</i>	Culture method, incl. possible confirmation PCR	13	10,000 seeds	ECCA100	€ 201,00
<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> (Syn: <i>Clavibacter sepedonicus</i>)	SE-PCR	5	10,000 seeds	CSQ100	€ 184,00
<i>Ralstonia solanacearum</i>	SE-PCR	5	10,000 seeds	RSQ100	€ 184,00
<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> (Syn: <i>C. sepedonicus</i>) and <i>Ralstonia solanacearum</i>	SE-PCR	5	10.000 seeds	COMBICSQ100	€ 218,00
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> , <i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> (Syn: <i>C. sepedonicus</i>) and <i>Ralstonia solanacearum</i>	SE-PCR	5	10.000 seeds	COMBICCSQ100	€ 253,00
<i>Verticillium dahliae</i>	Culture method	14	200 seeds	VDA002	€ 130,00
Arabis mosaic virus (ArMV)	PCR	4	3,000 seeds	ARMVQ030	€ 184,00
Tobacco rattle virus (TRV)	PCR	4	3,000 seeds	TRVQ030	€ 184,00
Tobacco ringspot virus (TRSV)	PCR	4	3,000 seeds	TRSVQ030	€ 184,00
Tobacco streak virus (TSV)	PCR	4	3,000 seeds	TSVQ030	€ 184,00
Tobamovirus (ToMV-DO3, TMV-WU1 and PMMoV)	Bio-assay	11	3,000 seeds	TOBAMOB030	€ 195,00
	ELISA	4	3,000 seeds	COMBITOBAMOEPA	€ 235,00
Tomato brown rugose fruit virus (ToBRFV)	PCR, incl. possible confirmation PCR	4	3,000 seeds	TOBRFVQ030PA	€ 184,00
			4,800 seeds (12 x 400)	TOBRFVQ048PA	€ 483,00
			6,000 seeds	TOBRFVQ060PA	€ 230,00
			20,000 seeds	TOBRFVQ200PA	€ 2.580,00
Tomato black ring virus (TBRV)	PCR	4	3,000 seeds	TBRVQ030	€ 184,00
Tomato bushy stunt virus (TBSV)	ELISA	4	3,000 seeds	TBSVE030	€ 155,00
Tomato mottle mosaic virus (ToMMV)	PCR	4	3,000 seeds	TOMMVQ030PA	€ 184,00
			4,800 seeds (12 x 400)	TOMMVQ048PA	€ 483,00
			6,000 seeds	TOMMVQ060PA	€ 230,00
			20,000 seeds	TOMMVQ200PA	€ 2.580,00
Tomato ringspot virus (ToRSV)	PCR	4	3,000 seeds	TORSVQ030	€ 184,00
Tomato yellow leaf curl virus (TYLCV)	PCR	4	3,000 seeds	TYLCVQ030	€ 184,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Pepper (continued)					
PSTVd, TCDVd, TPMVd	PCR	4	3,000 seeds	PSTVDQ030PA	€ 184,00
			4,800 seeds (12 x 400)	PSTVDQ048PA	€ 483,00
			20,000 seeds	PSTVDQ200PA	€ 2.580,00
Pospiviroids (CEVd, CLVd, PCFVd, PSTVd, TASVd, TCDVd and TPMVd)	PCR	4	3,000 seeds	COMBIPOSPIQ030PA	€ 253,00
			4,800 seeds (12 x 400)	COMBIPOSPIQ048PA	€ 670,00
			6,000 seeds	COMBIPOSPIQ060PA	€ 299,00
			20,000 seeds	COMBIPOSPIQ200PA	€ 2.950,00
Combination tests:					
Pospiviroids and ToBRFV	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBIPTQ030PA	€ 287,00
			4,800 seeds (12 x 400)	COMBIPTQ048PA	€ 760,00
			20,000 seeds	COMBIPTQ200PA	€ 3.130,00
Pospiviroids and ToMMV	PCR	4	3,000 seeds	COMBIPTOMQ030PA	€ 287,00
			4,800 seeds (12 x 400)	COMBIPTOMQ048PA	€ 760,00
			20,000 seeds	COMBIPTOMQ200PA	€ 3.130,00
ToBRFV and ToMMV	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBITTQ030PA	€ 218,00
			20,000 seeds	COMBITTQ200PA	€ 2.760,00
PSTVd and ToBRFV	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBIPSTQ030PA	€ 218,00
ToMMV, ToBRFV and Pospiviroids	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBIPTTQ030PA	€ 322,00
			4,800 seeds (12 x 400)	COMBIPTTQ048PA	€ 820,00
			20,000 seeds	COMBIPTTQ200PA	€ 3.310,00
Combi Cmm and Xcv	Culture method, incl. possible confirmation PCR	37	10,000 seeds	COMBICXA100PA	€ 354,00
Combi ArMV and TBRV	PCR	4	3,000 seeds	COMBITAQ030	€ 218,00
Combi ArMV and TRSV	PCR	4	3,000 seeds	COMBIATQ030	€ 218,00
Combi TBRV and ToRSV	PCR	2	3,000 seeds	COMBITBTOQ030	€ 218,00
Combi ToRSV and TRSV	PCR	2	3,000 seeds	COMBITOTRQ030	€ 218,00
Combi ArMV, TBRV and TRSV	PCR	4	3,000 seeds	COMBIATTQ030	€ 253,00

Spinach

<i>Cladosporium variabile</i>	Culture method, incl. possible microscopic confirmation	15	200 seeds	CVF002	€ 113,00
<i>Colletotrichum dematium</i>	Culture method, incl. possible microscopic confirmation	15	200 seeds	CDF002	€ 113,00
Cucumber mosaic virus (CMV)	ELISA	4	2,000 seeds	CMVE020SP	€ 270,00
<i>Fusarium oxysporum</i>	Culture method, incl. possible microscopic confirmation	22	200 seeds	FOA002SP	€ 245,00
			400 seeds	FOA004SP	€ 375,00
<i>Peronospora farinosa</i>	Soaking	4	1,000 seeds	PFAF010	€ 69,00
<i>Phomopsis</i> spp.	Visual determination	3	30,000 seeds	PSV300	€ 46,00
Sowbane mosaic virus (SoMV)	PCR	4	3,000 seeds	SOMVQ030	€ 184,00
Spinach latent virus (SpLV)	PCR	4	3,000 seeds	SPLVQ030	€ 184,00
<i>Stemphylium botryosum</i>	Culture method	15	200 seeds	SBF002	€ 113,00
<i>Verticillium dahliae</i>	Culture method	15	200 seeds	VDA002	€ 130,00
<i>Verticillium</i> spp.	Culture method	15	200 seeds	VSF002	€ 113,00
Combination tests:					
<i>Colletotrichum dematium</i> and <i>Verticillium</i> spp.	Culture method, incl. possible microscopic confirmation	15	200 seeds	COMBIVCO	€ 172,00
<i>Stemphylium botryosum</i> and <i>Verticillium</i> spp.	Culture method	15	200 seeds	COMBIVS	€ 172,00
<i>Stemphylium botryosum</i> , <i>Verticillium dahliae</i> and <i>Cladosporium variabile</i>	Culture method, incl. possible microscopic confirmation	15	200 seeds	COMBIVCS	€ 229,00
<i>Stemphylium botryosum</i> and <i>Cladosporium variabile</i>	Culture method, incl. possible microscopic confirmation	15	200 seeds	COMBISCF002	€ 172,00
<i>Stemphylium botryosum</i> , <i>Verticillium dahliae</i> , <i>Cladosporium variabile</i> and <i>Colletotrichum dematium</i>	Culture method, incl. possible microscopic confirmation	15	200 seeds	COMBIVCSC	€ 286,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Sticky Nightshade (Solanum sisymbriifolium)					
Pospiviroids (CEVd, CLVd, MPVd, PCFVd, PSTVd, TASVd, TCDVd and TPMVd)	PCR	4	3,000 seeds	COMBIPOSPIQ030PA	€ 253,00
			4,800 seeds (12 x 400)	COMBIPOSPIQ048PA	€ 670,00
			20,000 seeds (50 x 400)	COMBIPOSPIQ200PA	€ 2.950,00
Strawberry					
<i>Erwinia pyrifoliae</i>	PCR	4	max. 30 leaves	EPQ000	€ 134,00
<i>Xanthomonas fragariae</i>	PCR	4	max. 30 leaves	XFRAQ000	€ 134,00
<i>Xanthomonas fragariae</i> and <i>Erwinia pyrifoliae</i>	PCR	4	max. 30 leaves	COMBIXEQ000	€ 145,00
<i>Colletotrichum acutatum</i>	Culture method, incl. possible microscopic confirmation	15	200 seeds	CAF002	€ 113,00
Combination tests:					
SCV,SVBV,SMoV, SMYEV	PCR	4	max. 10 leaves	COMBI AARDBEI PCR	€ 62,00
SCV, SVBV, SMoV, SMYEV, ArMV	PCR	4	max. 10 leaves	COMBISSSSAQ	€ 73,50
Sunflower (Helianthus)					
<i>Sclerotinia sclerotiorum</i>	Culture method	11	200 seeds	SCSA002	€ 130,00
Tomato					
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> (CMM)	Culture method, incl. possible confirmation PCR	35	10,000 seeds	CMMA100	€ 218,00
			20,000 seeds	CMMA200	€ 287,00
			30,000 seeds	CMMA300	€ 287,00
			50,000 seeds	CMMA500	€ 530,00
			60,000 seeds	CMMA600	€ 530,00
			100,000 seeds	CMMA1000	€ 1.000,00
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> confirmation bio-assay		16			€ 138,00
<i>Clavibacter michiganensis</i> subsp. <i>Michiganensis</i> (Only possible for seeds not treated with hypochlorite)	SE-PCR	4	10,000 seeds	CMMQ100	€ 184,00
			30,000 seeds	CMMQ300	€ 230,00
	SE-PCR and culture	35	10,000 seeds	COMBICMMQA100	€ 403,00
			30,000 seeds	COMBICMMQA300	€ 520,00
<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> (Syn: <i>Clavibacter sepedonicus</i>)	SE-PCR	5	10,000 seeds	CSQ100	€ 184,00
<i>Ralstonia solanacearum</i>	SE-PCR	5	10,000 seeds	RSQ100	€ 184,00
<i>Erwinia carotovora</i> subsp. <i>carotovora</i> (ECC) Synonym: <i>Pectobacterium carotovorum</i>	Culture method, incl. possible confirmation PCR		10,000 seeds	ECCA100	€ 201,00
<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> (XCV) <i>X. gardneri</i> , <i>X. euvesicatoria</i> , <i>X. perforans</i> and <i>X.</i>	Culture method, incl. possible confirmation PCR	17	10,000 seeds	XCVA100	€ 205,00
			30,000 seeds	XCVA300	€ 273,00
<i>Pseudomonas syringae</i> pv. <i>tomato</i> (PST)	Culture method, incl. possible confirmation PCR	17	10,000 seeds	PSTA100	€ 205,00
			30,000 seeds	PSTA300	€ 273,00
Combination test for detection of CMM, XCV and PST					
PST / XCV	Culture method, incl. possible confirmation PCR	17	10,000 seeds	COMBIPXA100	€ 365,00
			30,000 seeds	COMBIPXA300	€ 434,00
CMM / XCV	Culture method, incl. possible confirmation PCR	35	10,000 seeds	COMBICXA100	€ 365,00
			20,000 seeds	COMBICXA200	€ 434,00
			30,000 seeds	COMBICXA300	€ 434,00
			50,000 seeds	COMBICXA500	€ 670,00
ECC / PST	Culture method, incl. possible confirmation PCR	17	10,000 seeds	COMBIEPA100	€ 423,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Tomato continued					
CMM / PST / XCV	Culture method, incl. possible confirmation PCR	35	10,000 seeds	COMBICPXA100	€ 510,00
			20,000 seeds	COMBICPXA200	€ 580,00
			30,000 seeds	COMBICPXA300	€ 580,00
			50,000 seeds	COMBICPXA500	€ 820,00
			60,000 seeds	COMBICPXA600	€ 820,00
			100,000 seeds	COMBICPXA1000	€ 1.300,00
<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> (Syn: <i>C. sepedonicus</i>) and <i>Ralstonia solanacearum</i>	SE-PCR	5	10,000 seeds	COMBICSQ100	€ 218,00
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> , <i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> (Syn: <i>C. sepedonicus</i>) and <i>Ralstonia solanacearum</i>	SE-PCR	5	10.000 seeds	COMBICCSQ100	€ 253,00
CMM, XCV, PST, ECC	Culture method, incl. possible confirmation PCR		10,000 seeds	COMBICPXE100	€ 660,00
<i>Alternaria solani</i>	Culture method	12	200 seeds	ASF002	€ 113,00
<i>Didymella lycopersici</i>	Culture method	11	200 seeds	DLA002	€ 130,00
<i>Fusarium oxysporum</i>	Culture method, incl. possible microscopic confirmation	22	200 seeds	FOA002TO	€ 245,00
			400 seeds	FOA004TO	€ 375,00
<i>Verticillium dahliae</i>	Culture method	14	200 seeds	VDA002	€ 130,00
Arabis mosaic virus (ArMV)	PCR	4	3,000 seeds	ARMVQ030	€ 184,00
Pelargonium zonate spot virus (PZSV)	ELISA	4	3.000 zaden	PZSVE030	€ 155,00
Pepino mosaic virus (PepMV)	ELISA	4	300 leaves	PEPMVE000	€ 57,00
			3,000 seeds	PEPMVE030	€ 155,00
			4,750 seeds	PEPMVE048	€ 311,00
Tobacco ringspot virus (TRSV)	PCR	4	3,000 seeds	TRSVQ030	€ 184,00
Tobacco streak virus (TSV)	PCR	4	3,000 seeds	TSVEQ030	€ 184,00
Tobacco rattle virus (TRV)	PCR	4	3,000 seeds	TRVQ030	€ 184,00
Tobamovirus (TMV-WU1 and ToMV-DO3)	ELISA	4	3,000 seeds	COMBITOBAMO	€ 195,00
	Bio-assay	11	3,000 seeds	TOBAMOB030	€ 195,00
Tomato black ring virus (TBRV)	PCR	4	3,000 seeds	TBRVQ030	€ 184,00
Tomato bushy stunt virus (TBSV)	ELISA	4	3,000 seeds	TBSVE030	€ 155,00
Tomato brown rugose fruit virus (ToBRFV)	PCR, incl. possible confirmation PCR	4	3,000 seeds	TOBRFVQ030	€ 184,00
			4,800 seeds	TOBRFVQ048	€ 483,00
			6,000 seeds	TOBRFVQ060	€ 230,00
			20,000 seeds (50 x 400)	TOBRFVQ200	€ 2.580,00
Tomato mottle mosaic virus (ToMMV)	PCR	4	3,000 seeds	TOMMVQ030	€ 184,00
			4,800 seeds	TOMMVQ048	€ 483,00
			6,000 seeds	TOMMVQ060	€ 230,00
			20,000 seeds (50 x 400)	TOMMVQ200	€ 2.580,00
Tomato ringspot virus (ToRSV)	PCR	4	3,000 seeds	TORSVQ030	€ 184,00
Tomato yellow leaf curl virus (TYLCV)	PCR	4	3,000 seeds	TYLCVQ030	€ 184,00
PSTVd, TCDVd, TPMVd	PCR	4	3,000 seeds	PSTVDQ030	€ 184,00
			4,800 seeds (12 x 400)	PSTVDQ048	€ 483,00
			20,000 seeds (50 x 400)	PSTVDQ200	€ 2.580,00
Pospi viroids (CEVd, CLVd, PCFVd, PSTVd, TASVd, TCDVd and TPMVd)	PCR	4	3,000 seeds	COMBIPOSPIQ030	€ 253,00
			4,800 seeds (12 x 400)	COMBIPOSPIQ048	€ 670,00
			6,000 seeds	COMBIPOSPIQ060	€ 299,00
			20,000 seeds (50 x 400)	COMBIPOSPIQ200	€ 2.950,00

Tests Crop / Pathogen	Method	Test time (days)	Sample size	Test code	Test rate (ex. basic rate page 2)
Combination tests:					
TMV-WU1, ToMV-D03, PepMV	ELISA	4	3,000 seeds	COMBIPTTE030	€ 235,00
ArMV and TBRV	PCR	4	3,000 seeds	COMBITAQ030	€ 218,00
ArMV, TBRV and TRSV	PCR	4	3,000 seeds	COMBIATTQ030	€ 253,00
ArMV and TRSV	PCR	4	3,000 seeds	COMBIATQ030	€ 218,00
ToBRFV and ToRSV	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBITOTOQ030	€ 218,00
ToBRFV and TYLCV	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBITOTYQ030	€ 218,00
TYLCV and ToMMV	PCR	4	3,000 seeds	COMBITYTOMQ030	€ 218,00
TBRV and ToRSV	PCR	4	3,000 seeds	COMBITBTOQ030	€ 218,00
ToRSV and TYLCV	PCR	4	3,000 seeds	COMBITORTYQ030	€ 218,00
ToRSV and PSTVd	PCR	4	3,000 seeds	COMBITOPSQ030	€ 231,00
Pospiviroids and ToMMV	PCR	4	3,000 seeds	COMBIPTOMQ030	€ 287,00
			20,000 seeds (50 x 400)	COMBIPTOMQ200	€ 3.130,00
ToBRFV and ToMMV	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBITTQ030	€ 218,00
			4,800 seeds	COMBIPTOMQ048	€ 760,00
			20,000 seeds (50 x 400)	COMBITTQ200	€ 2.760,00
Pospiviroïden and ToBRFV	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBIPTQ030	€ 287,00
			4,800 seeds	COMBIPTQ048	€ 760,00
			20,000 seeds (50 x 400)	COMBIPTQ200	€ 3.130,00
PSTVd and ToBRFV	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBIPSTOQ030	€ 218,00
ToMMV, ToBRFV and Pospiviroids	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBIPTTQ030	€ 322,00
			4,800 seeds	COMBIPTTQ048	€ 820,00
			20,000 seeds (50 x 400)	COMBIPTTQ200	€ 3.310,00
ToBRFV, ToMMV, TYLCV and Pospiviroids	PCR, incl. possible confirmation PCR	4	3,000 seeds	COMBITTTPQ030	€ 356,00
Other					
Fee per hour for extra research (if needed)					€ 144,00
Urgency fee					€ 83,00
Alteration on a Naktuinbouw certificate					€ 37,10
Special tests by Netherlands Food and Consumer Product Safety Authority (NPPO)					€ 231,00

Seed Quality Analysis

The Seed Analysis Laboratory carries out various tests to assess the quality of seed of flowers, trees, vegetables and herbs. Tests for germination, purity and moisture content or for tetrazolium and weeds are carried out under ISTA accreditation. In addition, the more practice-related Usable Plants Test can be performed. This can be applied to crops such as tomato, sweet pepper, cucumber-like crops, lettuce and cabbage.

Lead time

The lead times are not stated here, because they are crop-dependent. The waiting time until the start of the test is a maximum of 3 weeks. However, in exceptional cases (eg very high demand for tests) this can be deviated from.

Test fees

Germination test	Sample size	Test code	Test rate (ex. basic rate page 2)
ISTA certificate ⁵	400 seeds	KK004	€ 69,00
Naktuinbouw certificate	400 seeds	KK004	€ 69,00
	300 seeds	KK003	€ 60,00
	200 seeds	KK002	€ 52,50
	100 seeds	KK001	€ 45,50
Germination on weight			
Naktuinbouw certificate	Betula 1 gram	KK/GEW BEP	€ 126,00
Usable Plant test			
Naktuinbouw certificate	400 seeds	TBP004	€ 126,00
	300 seeds	TBP003	€ 118,00
	200 seeds	TBP002	€ 110,00
	100 seeds	TBP001	€ 102,00
Tetrazolium test (excluding tree and palm seeds)			
ISTA certificate ⁵	400 seeds	TET004	€ 272,00
Naktuinbouw certificate	400 seeds	TET004	€ 272,00
	200 seeds	TET002	€ 224,00
	100 seeds	TET001	€ 128,00
Tetrazolium test (tree and palm seeds)			
ISTA certificate ⁵	400 seeds	TETB004	€ 460,00
Naktuinbouw certificate	400 seeds	TETB004	€ 460,00
	200 seeds	TETB002	€ 407,00
	100 seeds	TETB001	€ 241,00
Vigour tests (Naktuinbouw certificate)			
Cold test (maize)	400 seeds	VIG004	€ 69,00
	300 seeds	VIG003	€ 60,00
	200 seeds	VIG002	€ 52,50
Conductancy test beans or peas (excl. moisture determination)	200 seeds	VIG EC 002	€ 26,60
Root resig nation (beetroot and corn)	400 seeds	KK004	€ 69,00
	300 seeds	VIG WU 003	€ 60,00
	200 seeds	VIG WU 002 SB	€ 52,50
Root length determination (spinach)	200 seeds	VIG W/H RATIO 002	€ 67,50
Accelerated Aging Test			upon request

Thousand seed weight (This determination is performed on pure seed)	Sample size	Test code	Test rate (ex. basic rate page 2)
ISTA certificate ⁵	800 seeds	DKG 008	€ 30,40
Naktuinbouw certificate	800 seeds	DKG 008	€ 30,40
	400 seeds	DKG 004	€ 21,60
	300 seeds	DKG 003	€ 18,60
	200 seeds	DKG 002	€ 15,40

Moisture determination

ISTA certificate ⁵	50 or 100 gram	VOC	€ 27,50
Naktuinbouw certificate	25 gram	VOC	€ 27,50

Purity test (ISTA-certificate ⁵ / Naktuinbouw-certificate)

Pulses	2,500 seeds	ZB	€ 54,50
Other	2,500 seeds	ZB	€ 54,50
Purity test and determination of other seeds export Australia	25,000 seeds	OB ZB AUSTRALIË	€ 236,00
Determining the presence of other seeds	25,000 seeds maximal 1 kilo	OB 250 OROB	€ 198,00
Seed determination			upon request
Determining the presence of broken, discoloured etc. seeds ('piksel')		PB	€ 31,70

Various (Naktuinbouw certificate)

Determining the kind of starch for pea	5 seeds	ZB	€ 54,50
Determining dry matter of onion/carrot	10 bulbs/roots	DSB	€ 30,40
Determining 'single seeds rate' of beet seeds	400 seeds	MON	€ 56,50
Fractioning test	25,000 seeds		upon request
Determining the presence of Rhizomanie	500 gram seeds	RHI	€ 31,20
Determining the presence of Sclerotinia	25,000 seeds	SCL250	€ 60,00
Determining the presence of beetles in seed lots		KEV	€ 31,70

Other

	Rate
Disinfection of seeds before testing	€ 21,80
Surcharge priority treatment	€ 83,00
Creation of an ISTA certificate	€ 11,90
Alteration on an ISTA certificate	€ 37,10
Alteration on a Naktuinbouw certificate	€ 37,10
Fee per hour for extra research (if needed)	€ 144,00

⁵ For ISTA certificates costs for sampling and certificates are charged separately.

Variety Identification

Identity testing

Naktuinbouw has laboratory techniques to determine the identity of your material. This may be important and useful where material has been mixed, mistakenly replaced, origin tracing (pathogens), when the matter is urgent and/or when morphological research is not possible.

Identity testing is carried out by using DNA fingerprint techniques. A typical research project includes sampling, DNA isolation, fingerprinting, analysis, determination of the genetic relations, statistical analysis and reporting.

It is important for identity testing that the commissioning party provides the samples as well as adequate reference samples. If samples need to be compared to a Naktuinbouw database with varieties from a third party, Naktuinbouw has to and will ask for permission from said parties before a report can be issued.

For the crops; Strawberry, Phalaenopsis, Apple, Potato and Rose Naktuinbouw features a SSR-Database. For these varieties it is possible to do an identification project per sample.

Rates for SSR identification

Per sample

For 1 - 4 Samples	€ 304,00
For 5 - 8 Samples	€ 280,00
For 9 - 16 Samples	€ 252,00

For more samples, we would gladly provide you with a quotation.

Fee for standard AFLP projects

Sample selection for AFLP projects are the responsibility of the commissioning party. If Naktuinbouw feels that the selection of reference varieties and/or the number of primer combinations are inadequate, no report will be issued until further testing. Unless the commissioning party is requesting a specific set of primer combinations for testing and analyses, it is up to Naktuinbouw to choose the primer combinations which will be tested.

For 1-16 samples with 4 primer combinations € 2.890

For other amounts of samples (17-32 or 33-64) and/or other amounts of primer combinations, we would gladly provide you with a quotation.

Variety Tracer

Naktuinbouw developed a concept to help with settling the allegations of infringement of plant breeders' rights and patents: Naktuinbouw Variety Tracer®. It can provide evidence in cases of alleged infringement of plant breeders' rights, it allows to determine the identity of varieties and it can confirm suspicion of repeated cropping. Naktuinbouw Variety Tracer combines knowledge, independence and the possibility of morphological research with the possibilities of DNA fingerprint techniques. It is the combination of – and synergy between – these elements that guarantees extremely sound analyses and provides important evidence for possible court cases.

Please contact us for more information and a quotation.

Molecular identification of Cmm / Xcc isolates.

The molecular analysis of isolates of plant pathogenic bacteria will give insight in the genetic similarity. This will be done by comparing the DNA profiles from the supplied samples amongst each other and to profiles stored in the database. The results of the analysis can give insight into the relationship between the occurrences of different isolates. The analysis will be performed on a single colony culture. These can be supplied by you, accompanied with a laboratory submission form. A combination with a diagnostic test is also possible if bacteria are found in symptomatic material. A single colony culture will be made on which the molecular analysis and comparison will be performed. The results will be provided in a report including a dendrogram.

Arboriculture Crops and Fruits

Bio assays and making crops free from viruses

Arboricultural crops (including apples, pears, small fruit, strawberries and roses) are made free from viruses by means of various treatments, including heat treatment, at the Naktuinbouw Test Centre in Horst. The tops of treated plants are grafted onto virus-free rootstock or propagated from cuttings. Subsequent laboratory analyses, liquid inoculations using test plants and grafting onto woody indicators is applied to confirm the virus-free status of the grafted tops.

Composition of the test fee

Naktuinbouw charges a base fee for handling costs in addition to the test rate as indicated below.

The basic fee for every assignment per crop is: € 57,00

Testing fees

Tests:	Sample size	Rate (ex. basic rate)
Virus test on two herbaceous host, both in duplicate	min. 2 g. leafs	€ 228,00
<i>Each following test plant, per single plant</i>	min. 2 g. leafs	€ 50,50
Virus test on two herbaceous host Saponaria, both in duplicate	min. 2 g. leafs	€ 159,00
Virus test candidate plants fruit crops on herbaceous host, Chenopodium quinoa (4 repetitions)		€ 228,00
Virus test candidate plants fruit crops on herbaceous host, Nicotiana occidentalis 37B (4 repetitions)		€ 228,00
Virus test candidate plants fruit crops on herbaceous host, Cucumis sativus (4 repetitions)		€ 228,00
Virus test candidate plants fruit crops on herbaceous host, Chenopodium quinoa en Nicotiana occ. 37B (2 repetitions)		€ 228,00
Virus test on <i>Rubus occidentalis</i> (maintenance prebasic)		€ 241,00
Virus test on <i>Rubus occidentalis</i> (candidate plants)		€ 379,00
Virus test on <i>Rubus Baumforth</i> Seedling (candidate plants)		€ 379,00
Virus test on <i>Rubus</i> Norfolk Giant (candidate plants)		€ 379,00
Combination Apple viruses PCR test (ApMV – ACLSV - ASGV - ASPV)		€ 62,00
Virus test on woody indicator plants (in the greenhouse per indicator, per specimen)		€ 379,00
Virus test on woody indicator plants (in the field per indicator, per specimen)		€ 166,00
Virus test of strawberry by leaf grafting on <i>Fragaria</i> UC5 (maintenance prebasic)		€ 119,00
Virus test of strawberry by leaf grafting on <i>Fragaria</i> UC5 (candidate plants)		€ 228,00
Virus test of strawberry by leaf grafting on <i>Fragaria</i> UC12 (candidate plants)		€ 228,00
Combination of strawberry viruses PCR test (SCV – SVBV – SMoV – SMYEV)		€ 62,00

Rendering free of viruses: Making woody plants virus-free (per variety)

(Including testing program, heat treatment if necessary, excluding identity determination)

	Rate per year
Strawberry	€ 4.270,00
Soft fruits (maximum 2 year)	
<i>Ribes</i>	€ 3.560,00
<i>Rubus</i>	€ 3.560,00
<i>Vaccinium</i>	€ 2.430,00
Malus, Pyrus (maximum 5 years)	
year 1 (pre-testing, heat treatment)	€ 3.070,00
year 2 (testing treated material)	€ 5.460,00
year 3 up to year 5 (maintaining treated material; fee per year)	€ 740,00

Rendering free of viruses: Making woody plants virus-free (per variety) continued

	Rate per year
Prunus (maximum 4 years)	
year 1 (pre-testing, heat treatment)	€ 2.620,00
year 2 (testing treated material)	€ 4.470,00
year 3 and year 4 (maintaining treated material; fee per year)	€ 740,00
Other woody plants	upon request
Extra heat treatment	€ 1.030,00

Per order of woody plants and strawberry, 3 fully tested plants will be delivered.

Health certificate import for (EU) 2019/829

	Rate
Actinidia	€ 1.311,00
Fragaria	€ 4.520,00
Malus, Pyrus, Cydonia	€ 1.345,00
Prunus	€ 2.720,00
Rubus, Ribes	€ 3.772,00
Vaccinium	€ 2.568,00

Special services

	Rate
Preparing material for the request for Plant Breeders' Rights	upon request
DNA fingerprinting strawberry or raspberry variety	upon request