

Grapevine Testing Information

Sample Submission forms are available on request and must accompany samples that are submitted for testing against specific pathogens by ELISA or PCR analysis. Test results can take up to 10 working days after receiving samples.

The majority of our ELISA testing is for GLRaV-3 (grapevine leafroll disease) but we often perform PCR tests (please enquire for pricing) for GLRaV-1, GLRaV-2, Fanleaf virus, Viti/Fovea viruses and *X. ampelinus* (bacterial blight a.k.a vlamsiekte) and the comprehensive list of available tests can be viewed on our website: (<https://www.pathsol.co.za/diagnostic>).

Testing is performed for various different reasons, we offer **Grid Testing** with high coverage (25%-100% per ha) or **Spot Testing** with low coverage (<1%-5% per ha).

Grid testing is typically performed to ensuring that healthy propagation material is selected and is free of specific pathogens. With recent advances in the sensitivity of testing allowing for larger pools (see pooling table below) **Grid testing** is also becoming viable for disease control programs and may be used in white varieties (that do not display clear leafroll disease symptoms) to identify infected vines for roguing, to prevent the spread of viral infections.

Spot testing may be performed to confirm infections of suspected individual vines, since symptoms may be caused by stress related to other biotic and abiotic factors such as nutrient deficiencies. It may also be used in white varieties where symptoms can not be used in order to establish an estimate of the infection incidence within a block. Testing is conducted at 1%-5% coverage of a block. Sampling can be individual vines if significant infections are expected, or in pools for younger blocks, see pooling table below. Testing information is used to make decisions for subsequent actions, such as whether a block is adequate for **grid testing** for propagative material or if disease control will be viable.

Since testing is always conducted in batches (which include controls) it is proportionally very expensive to do single or small amounts of samples. To offset this effect an Assay Set-Up fee is included for submissions of fewer than 10 samples. The testing of samples in large batches allows an economy of scale and thus a tiered cost of testing as listed below. A project may be expedited at an additional Expedite Fee which will ensure results in the shortest possible time, usually 5-7 work days.

Item	Price exc. VAT	Expected Infections	Pool Size
Assay Set Up Fee	R120.00	5%	4
		4%	5
ELISA Assay: GLRaV-3 Detection 90	R60.00	3%	7
ELISA Assay: GLRaV-3 Detection 360	R58.00	2%	10
ELISA Assay: GLRaV-3 Detection 1000	R55.00	1%	20
ELISA Assay: GLRaV-3 Detection 2000	R52.00	0.75%	20
ELISA Assay: GLRaV-3 Detection 3000	R50.00	0.50%	20
ELISA Assay: GLRaV-3 Detection 4000	R48.00	0.25%	20
ELISA Assay: GLRaV-3 Detection 5000	R46.00		
ELISA Assay: GLRaV-3 Detection 7000	R43.00		
ELISA Assay: GLRaV-3 Detection 8000	R42.00		
ELISA Assay: GLRaV-3 Detection 10 000	R41.00	Expedite Fee	R240.00

