

Genetically Modified Organisms (GMO) Analysis

For any product to be classed as organic it must contain or have been fed no Genetically Modified Organisms (GMO). All GMO crops have a marker coded into their genes to enable easy detection. These are CaMV35s promotor and the NOS terminator. When testing by PCR the analysis has an LOD of 0.1% and detects anything above that.

There is an unaccredited CaMV35s which will pick up any matrix, however the specific markers feed mills will be interested in are specifically for Soya and Maize, these are both accredited. For the classic "3 screen" use TL... which holds the 2 CaMV35s and the NOS terminator. This would be used to pick up carry over in finished feed material mainly. If a raw material is being tested, then the customer may be only wanting to test the provenance so may only require a "2 screen" for the matrix in question.

2 Screen accredited test CAMV35s soya + NOS TL00603.

2 Screen accredited test CAM35s maize + NOS TL TL00604.

3 Screen accredited test CAMV35s soya + CAM35s maize + NOS TL00605.

As different crops have differing marker concentrations, we are not able to quantify levels from these. The subcontract lab will send through a COA with the results looking like this:

Sample Description: **GMO TEST**

Test Ref	Analysis	LOQ / ROQ	Result	Units
MET046&057	NOS Qualitative *	0.1%	Not Detected	
MET046&057	CaMV35s Qualitative *	0.1%	Detected	

Organic theoretically cannot have any in at all. Any intentionally present needs to be declared. Tolerance 0.9% for accidental inclusion (as long as authorised such as Roundup Ready soya). In reality, if any present then change from not present to a declared level and can then use.

When a present result is generated, LIMS will flag up to say that the customer needs to be contacted to see if they require quantification. The subcon lab is UKAS accredited for soya beans, but not finished product etc. The ingredients should be considered when this decision is made, and testing requested. The subcon lab will need to be instructed

For more information on Sciantec's services, or to request a quotation, please visit our website or contact us on the details provide below:



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