

# DIN EN ISO 21570:2013-08 (E)

Foodstuffs - Methods of analysis for the detection of genetically modified organisms and derived products - Quantitative nucleic acid based methods (ISO 21570:2005 + Cor 1:2006 + Amd 1:2013)

---

<b>Contents</b>	<b>Page</b>
Introduction .....	4
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions .....	5
4 Principle .....	6
5 Reagents .....	6
6 Apparatus and equipment .....	6
7 Guidelines concerning the procedure .....	7
8 Interpretation .....	8
9 Expression of results .....	9
10 Test report .....	9
Annex A (informative) Target taxon-specific methods .....	11
A.1 Target taxon-specific method for the absolute quantitation of the adh1 gene DNA of maize using real-time PCR .....	11
A.2 Target-taxon-specific method for the detection of DNA derived from rice .....	16
A.3 Target-taxon-specific method for the detection of components derived from tomato (Lycopersicon esculentum) .....	24
Annex B (informative) Screening methods .....	32
B.1 Screening method for the relative quantitation of the 35S-promoter DNA of soya bean line GTS 40-3-2 using real-time PCR .....	32
Annex C (informative) Construct-specific methods .....	40
C.1 Construct-specific method for the quantitation of soya bean line GTS 40-3-2 DNA using real-time PCR (Method 1) .....	40
C.2 Construct-specific method for the quantitation of soya bean line GTS 40-3-2 DNA using real-time PCR (Method 2) .....	47
C.3 Construct-specific method for the quantitation of Event176 maize DNA using real-time PCR .....	54
C.4 Construct-specific method for the quantitation of soya bean line GTS 40-3-2 DNA using real-time PCR .....	61
C.5 Construct-specific method for the quantitation of maize line MON 810 DNA using real-time PCR .....	69
C.6 Construct-specific method for the quantitation of maize line Event176 DNA using real-time PCR .....	76

<b>C.7</b>	<b>Construct-specific method for the quantitation of maize line Bt11 DNA using real-time PCR .....</b>	<b>83</b>
<b>C.8</b>	<b>Construct-specific method for the quantitation of maize line GA21 DNA using real-time PCR .....</b>	<b>91</b>
<b>C.9</b>	<b>Construct-specific method for the quantitation of maize line T25 DNA using real-time PCR .....</b>	<b>98</b>
	<b>Annex D (informative) Event-specific methods .....</b>	<b>107</b>
<b>D.1</b>	<b>Event-specific method for the absolute and relative quantitation of maize line Bt11 DNA based on real-time PCR .....</b>	<b>107</b>
<b>D.2</b>	<b>Event-specific method for the relative quantitation of maize line MON 810 DNA using real-time PCR .....</b>	<b>113</b>
	<b>Bibliography .....</b>	<b>120</b>