



**G-TWYST**  
GM PLANTS TWO YEAR SAFETY TESTING

# Introduction to G-TwYST

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## Basic information regarding the call

- Call **KBBE-2013-FEEDTRIALS**: *Two-year carcinogenicity rat feeding study with maize NK603*
- Type of funding scheme: *Collaborative Project* (small or medium-scale focused research project)
- Budget: 2,999,890 €
- Duration: 4 years, starting date: 21<sup>st</sup> April 2014

<b>Participant no.</b>	<b>Participant organisation name</b>		<b>Country</b>
<b>1 (Coordinator)</b>	<b>Tiermedizinische Hochschule Hannover (TiHo)</b>	<b>Uni</b>	<b>Germany</b>
<b>2</b>	<b>Centre de Recerca Agrigenòmica Consorci CSIC-IRTA-UAB (CRAG)</b>	<b>Res</b>	<b>Spain</b>
<b>3</b>	<b>Stichting Dienst Landbouwkundig Onderzoek (DLO)</b>	<b>Uni</b>	<b>The Netherlands</b>
<b>4</b>	<b>Julius Kühn-Institut (JKI)</b>	<b>Gov</b>	<b>Germany</b>
<b>5</b>	<b>LIS Consult (LIS)</b>	<b>SME</b>	<b>The Netherlands</b>
<b>6</b>	<b>Roger Alison Ltd. (RA)</b>	<b>SME</b>	<b>United Kingdom</b>
<b>7</b>	<b>Slovenska Zdravotnicka Univerzita v Bratislave (SZU)</b>	<b>Uni</b>	<b>Slovakia</b>
<b>8</b>	<b>Universitaet Klagenfurt (UNI-KLU)</b>	<b>Uni</b>	<b>Austria</b>

## Objectives of the G-TwYST project (I)

- to elaborate a scientifically sound approach to evaluate the potential toxicity of genetically modified plants in whole feed based on the results of extended feeding studies with the GM maize NK603 performed according to current OECD Test Guidelines and EFSA recommendations
- to define criteria to evaluate the scientific quality of long-term feeding studies

## Objectives of the G-TwYST project (II)

- to define when long-term animal feeding trials are scientifically justified and which is their added value in the frame of the GMO risk assessment process
- to analyse the role/influence of broader societal issues including ethical aspects (normative dimensions) in/on the ongoing debate associated with animal feeding studies in GM food/feed risk assessment

## Objectives of the G-TwYST project (III)

- to make accessible the detailed scientific information including raw data via the project website, the open access database, open access journal papers and stakeholder consultations
- to communicate the results of the project and their significance for the GMO risk assessment process to risk assessors, risk managers, a broad range of stakeholders and the general public

## 90-day feeding trial with GM maize NK603 (Trial 1)

Group	Content in the diet (%)			No. of animals	
	Isogenic non-GM	NK603	NK603 + Roundup	Males	Females
1	33	0	0	16	16
2	22	11	0	16	16
3	0	33	0	16	16
4	22	0	11	16	16
5	0	0	33	16	16
Sentinels				6	6
Total				86	86

## 90-day feeding trial with GM maize NK603 (Trial 2)

Group	Content in the diet (%)			No. of animals		Maize inclusion
	Isogenic non-GM	NK603	NK603 + Roundup	Males	Females	
1	33	0	0	16	16	33
2	0	33	0	16	16	33
3	0	0	33	16	16	33
4	50	0	0	16	16	50
5	39	11	0	16	16	50
6	0	50	0	16	16	50
7	39	0	11	16	16	50
8	0	0	50	16	16	50
Sentinels				6	6	
Total				134	134	



## Combined chronic toxicity/carcinogenicity feeding trial with GM maize NK603 (Trial 3)

Group	Content in the diet (%)			No. of animals			
				Chronic toxicity		Carcinogenicity	
	Isogenic non-GM	NK603	NK603 + Roundup	Males	Females	Males	Females
1	33	0	0	20	20	50	50
2	22	11	0	20	20	50	50
3	0	33	0	20	20	50	50
4	22	0	11	20	20	50	50
5	0	0	33	20	20	50	50
Sentinels						10	10
Total				100	100	260	260