NK603: cultivation and food/feed application

NK603 is one of Monsanto's maize events sold as "Roundup Ready" and contains two copies of the cp4-epsps gene transfering glyphosate tolerance. Due to an exchange two nucleotids only one of the proteins is the original CP4 EPSPS protein while the other one has one different aminoaccid and is classified as CP4 EPSPS L214P.
For details on the genetic modification see the general entry on NK603 [1].

This application combines the renewal of NK603 as existing GM food and feed products with an application for NK603 cultivation in the EU. NK603 feed had been approved as feed in 2004 and as food in 2005. Food and feed additives had already been approved earlier under 89/107/EEC and 70/524/EEC, and were subsequently notified as existing products when Regulation 1829/2003 came into force. These EU approvals were all given as decisions of the EU Commission but without qualified majorities by the Agricultural and/or Environmental Councils.

NK603 was first approved for cultivation in 2000 in the US, and currently (October 2009) cultivation is allowed in Argentina, Brazil, Canada, Japan, Philippines, South Africa and the US.

Comments on the opinion of the GMO Panel:
The EFSA GMO Panel comes to the conclusion that "there were no adverse effects in a 90-day feeding study on rats with NK603 maize grain." However, a number of statistically significant differences were recorded in this study.
In June 2007, independent scientists (Seralini et al. 2007) re-evaluated a 90-day feeding studies with rats conducted from Monsanto's NK603 application. The study recorded numerous parameters including blood composition and detoxification organs. 67 significant statistical differences were reported but later decleared by Monsanto as "biologically not meaningful". Seralini et al. however found first of all flaws in the study design, and secondly comes to different interpretations of the data. They come to the conclusion that it is not justified to exclude statistically significant differences when they were not recorded to the same degree for male and female rats, when effects were transient or when no dose-effect relationship could be determined.

Related events: Event NK603 [2]
Related application(s): MON89034 x NK603 for food/feed [3]
Question number: EFSA-Q-2009-00626
Application number: EFSA-GMO-NL-2005-22
Application date: 04/08/2005
Type: renewal
Aplication accepted: 12/05/2006
Status: opinion adopted
Deadline: 25/04/2009
Links & resources: CRIGEN (2007): Evaluation of Monsanto's 90 day feeding study with NK603 [4]
EFSA registration [5]
Petitioner: Monsanto
Applicant/Requester: The Netherlands
ERA lead: Spain
Opinion adopted: 11/06/2009
Opinion of the GMO Panel [6]
EU consultation form or comments [7]
Consultation deadline: 15/07/2009
Application status at EU level: pending
EU authorization status [8]

Source URL: https://www.testbiotech.org/en/content/nk603-cultivation-and-foodfeed-application

Links
[1] https://www.testbiotech.org/en/node/39
[2] https://www.testbiotech.org/en/content/event-nk603
[3] https://www.testbiotech.org/en/content/mon89034-x-nk603-foodfeed
[4] http://biosafety-info.net/article.php?aid=467
[5] http://registerofquestions.efsa.europa.eu/roqFrontend/questionLoader?question=EFSA-Q-2009-00626
[6] http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1211902572982.htm
[7] http://ec.europa.eu/food/food/biotechnology/gmo_authorisation_en.htm
[8] http://ec.europa.eu/food/dyna/gm_register/gm_register_auth.cfm?pr_id=16