

Outline of the Biological Diversity Risk Assessment Report

Results of the review by persons with specialized knowledge and experience concerning Adverse Effects on Biological Diversity

A review was made by persons with specialized knowledge and experience concerning Adverse Effect on Biological Diversity (called Experts) for possible Adverse Effect on Biological Diversity caused by the use in accordance with the Type 1 Use Regulation for Living Modified Organism based on the Law concerning the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms. Results of the review are listed below.

(1) Results of the assessment of Adverse Effects on Biological Diversity

The stearidonic acid-producing soybean tolerant to glyphosate herbicide (hereinafter referred to as “this stacked line”) was developed with the following lines by crossing:

- ① Stearidonic acid-producing soybean, to which modified *Pj.D6D* gene coding for modified $\Delta 6$ desaturase and modified *Nc.Fad3* gene coding for modified $\Delta 15$ desaturase are transferred (hereinafter referred to as “MON87769”); and,
- ② Soybean tolerant to glyphosate herbicide, to which modified *cp4 epsps* gene coding for modified CP4 EPSPS protein is transferred (hereinafter referred to as “MON89788”).

The modified $\Delta 6$ desaturase, modified $\Delta 15$ desaturase and modified CP4 EPSPS protein produced from the genes transferred to this stacked line have high substrate specificity, and it is unlikely that they affect each other to change the specificity. In addition, the metabolic pathways of modified $\Delta 6$ desaturase and modified $\Delta 15$ desaturase and that of modified CP4 EPSPS protein are independent of each other, and it is unlikely that the expressed proteins derived from respective parent lines affect one another.

Based on the above, it is unlikely that these proteins derived from respective parent lines functionally affect one another in the plant body of this stacked line, and therefore it has been concluded that there are no trait changes to be evaluated, except having traits which the respective parent line had.

For the following information, the examination of the respective evaluation items of the parental lines has already been completed* in the Committee meeting. Based on the results of the examination, the conclusion described in the Biological Diversity Risk Assessment Report that the use of the respective parent lines in accordance with the Type 1 Use Regulation causes no Adverse Effects on Biological Diversity in Japan has been judged to be reasonable.

a. Competitiveness

b. Productivity of harmful substances

c. Crossability

* The results of the evaluation of the respective parent lines are available as described below.

- MON87769

http://www.bch.biodic.go.jp/download/lmo/public_comment/H23_9_27_MON87769sp2.pdf

- MON89788

https://ch.biodic.go.jp/bch/OpenDocDownload.do?info_id=1003&ref_no=2

(2) Conclusion based on the Biological Diversity Risk Assessment

Based on the above understanding, the conclusion described in the Biological Diversity Risk Assessment Report that the use of this stacked line in accordance with the type 1 Use Regulation causes no Adverse Effects on Biological Diversity in Japan has been judged to be reasonable.