

Document 6-1

Results of the study by the crop subcommittee

Name: Lepidoptera pest resistant and herbicide glufosinate resistant corn (modified cry1Ab, modified vip3A, pat, Zea mays subsp. mays (L.) Itis) (Bt11 × MIR162, OECD UI: SYN-BTØ11-1 × SYN-IR162-4)

Five Contents of first-class use, etc.: Use, cultivation, processing, storage, transportation and waste for food or feed
Abandonment and acts accompanying them

Applicant: Syngenta Japan Co., Ltd.

Ten The Agricultural Products Subcommittee is based on the biodiversity impact assessment submitted by the applicant and
According to one type of use regulation maize (Lepidoptera pest resistance and herbicide glufosinate resistant maize)
Below is called "the stack system".) Applicants for the impact of biodiversity when using Class I
The content of the evaluation was examined.

15 In general, only the characteristics of the parent system are given to the stack system, but it has not been introduced.
New interactions that exceed the parental lineage due to the interaction of proteins produced by the expression of
Unique properties that can result in biodiversity effects not found in the parental lineage.
The Therefore, in examining the stack line, the expression of the gene transferred to the parent line
If there is no interaction between traits and it is determined that there is no interaction between traits,
Perform biodiversity impact assessment for the stack using the biodiversity impact assessment information
Is possible. On the other hand, if it is not determined that there is no interaction between traits,
Biodiversity impact assessment using sex impact assessment information and test results on the stack system
20 There is a need to do.

Based on the above, the main items confirmed are as follows.

About result of 1 biodiversity impact assessment

This stack system

twenty five Coding the modified cry1Ab gene and PAT protein encoding the modified Cry1Ab protein
Lepidoptera pest resistance and glufosinate-resistant corn with pat gene introduced

Koshi (Bt11),

Encodes the modified vip3A gene and the PMI protein that encode the modified Vip3A protein
Lepidoptera pest resistant maize (MIR162) with pmi gene introduced,

30 It was created by the cross breeding method.

Each Bt protein (modified Cry1Ab protein) produced by the gene introduced into this stack line
And the modified Vip3A protein) are thought to exhibit insecticidal activity independently and influence each other.
It was thought that there was no synergistic effect or antagonism caused by depressing. In addition, herbicide resistant protein
PAT protein and PMI protein, which is a selection marker protein, have high substrate specificity.
It is thought that it does not change the metabolic system. In addition, the substrate of each protein is different,
Since Xie systems are also independent of each other and there is no report that Bt protein has enzyme activity,
In stack systems, these proteins can interact to change the host metabolic system

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The nature was considered low.

From these facts, these proteins derived from each parental line are found in the plants of this stack line.

In addition to having the traits of the parent strain

It was considered that there was no change in the character to be evaluated.

The evaluation items listed below for each parent line have already been considered *, and
As a result, biodiversity in Japan when each parental line is used in accordance with the first class regulations
The conclusion of the Biodiversity Impact Assessment Report that there is no risk of impact on
It is.

- (1) Competitive advantage
- (2) Productivity of hazardous substances
- (3) Crossability

* The results of the examination of each parent line can be viewed from the following.

- Bt11
https://ch.biodic.go.jp/bch/OpenDocDownload.do?info_id=906&ref_no=2
- MIR162
https://ch.biodic.go.jp/bch/OpenDocDownload.do?info_id=1493&ref_no=2

Conclusion of 2 crop subcommittee

Based on the above, when this stack system is used in accordance with the Class 1 Usage Regulations,
The conclusion of the Biodiversity Impact Assessment Report that there is no risk of impact on physical diversity is reasonable
It was judged.

