

EuropaBio Monitoring WG Farmer Questionnaire

Product: insect protected YieldGard® maize

Farmer personal and confidential data

Name of farmer: _____

Address of farmer: _____

City: _____

Postal code: _____

Name of interviewer: _____

Date of interview (DD / MM / YYYY): _____ / _____ / _____

The personal data of the farmer will be handled in accordance with applicable data protection legislation. The personal data of the farmers may be used for the purpose of interviews necessary for the survey if the farmers have authorised this use as per the data protection legislation.

The questionnaires will be encoded to protect farmers' identity in the survey and confidentiality agreements will be put in place between the different parties (i.e. authorisation holders, licensees, interviewers and analyst) to further enforce this. The identity of a farmer will only be revealed to the authorisation holders if an adverse effect linked to their trait has been identified and needs to be investigated.

Furthermore, the agreements between the different parties will also ensure that any information collected in the questionnaires will not be improperly shared or used.

Code:

Year Event Partner Country Interviewer
Farmer Area

Coding explanations:

2	0	0	9	-	0	1	-	M	O	N	-	E	S	-	0	1	-	0	1	-	0	1							
Year				-		Event Code		-			Partner ¹ Code			-		Country Code		-		Interviewer ² Code		-		Farmer Code		-		Area Code	

Codes:

Event: 01 MON 810
02 ...

Partner¹: MON Monsanto
MAR Markin
AGR Agro.Ges
...

Country: ES Spain
PT Portugal
...

Interviewer²: 01 A
02 B
03 ...

Farmer: incremental counter within the interviewer

Area: incremental counter within the farmer

¹ Partner is the organization that implements the survey

² Interviewer is the employee from the Partner that is contacting the farmers

1 Maize grown area

1.1 Location:

Country: _____
 County: _____

1.2 Surrounding environment:

Which of the following would best describe the land usage in the surrounding of the areas planted with YieldGard® maize

- Farmland
- Forest or wild habitat
- Residential or industrial

1.3 Size and number of fields of the maize cultivated area:

Total area of all maize cultivated on farm (ha) _____
 Total area of YieldGard® maize cultivated on farm (ha) _____
 Number of fields cultivated with YieldGard® maize _____

1.4 Maize varieties grown:

List up to five YieldGard® maize varieties planted this season:

1. _____
2. _____
3. _____
4. _____
5. _____

List up to five conventional varieties planted this season:

1. _____
2. _____
3. _____
4. _____
5. _____

Are you growing any other GM maize varieties this season?³
 Yes No

³ Note: This question does not need to be asked in the 2016 season.

1.5 Soil characteristics of the maize grown area:

Mark the predominant soil type of the maize grown area (soil texture):

- very fine (clay)
- fine (clay, sandy clay, silty clay)
- medium (sandy clay loam, clay loam, sandy silt)
- medium-fine (silty clay loam, silt loam) loam
- coarse (sand, loamy sand, sandy loam)
- no predominant soil type (too variable across the maize grown area on the farm)
- I do not know

Characterize soil quality of the maize grown area (fertility):

- below average - poor
- average - normal
- above average - good

Organic carbon content (%) _____

1.6 Local pest and disease pressure in maize:

Characterize this season's general pest pressure on the maize cultivated area:

- | | | | |
|-----------------------------------|---------------------------|--------------------------------|----------------------------|
| Diseases (fungal, viral) | <input type="radio"/> Low | <input type="radio"/> As usual | <input type="radio"/> High |
| Pests (insects, mites, nematodes) | <input type="radio"/> Low | <input type="radio"/> As usual | <input type="radio"/> High |
| Weeds | <input type="radio"/> Low | <input type="radio"/> As usual | <input type="radio"/> High |

2 Typical agronomic practices to grow maize on your farm

2.1 Irrigation of maize grown area:

- Yes
- No

If yes, which type of irrigation technique do you apply:

- Gravity
- Sprinkler
- Pivot
- Other

2.2 Major rotation of the maize grown area:

previous year: _____
two years ago: _____

2.3 Soil tillage practices:

- No
- Yes (mark the time of tillage: Winter Spring)

2.4 Maize planting technique:

- Conventional planting
- Mulch
- Direct sowing

2.5 Mark all typical weed and pest control practices in maize at your farm:

- Herbicide(s)
- Insecticide(s)
If box checked, do you treat against maize borers? Yes No
- Fungicide(s)
- Mechanical weed control
- Use of bio control treatments (e.g. Trichogramma)
- Other, please specify: _____

2.6 Application of fertilizer to maize grown area:

- Yes No

2.7 Typical time of maize sowing range (DD:MM – DD:MM):

_____/____/____ -- ____/____/____

2.8 Typical time of maize harvest range (DD:MM – DD:MM):

Grain maize: ____/____/____ -- ____/____/____
Forage maize: ____/____/____ -- ____/____/____

3 Observations of YieldGard® maize

3.1 Agricultural practices in YieldGard® maize (compared to conventional maize)

Did you change your agricultural practices in YieldGard® maize compared to conventional maize? If any of the answers is different from «As usual», please specify the change.

How did you perform your crop rotate for YieldGard® maize compared with conventional maize?

- As usual Changed, because (describe the rotation): _____

Did you plant YieldGard® maize earlier or later than conventional maize?

- As usual Earlier Later, because: _____

Did you change your soil tillage or maize planting techniques to plant YieldGard® maize?

- As usual Changed, because: _____

Full commercial name of insecticides you applied in YieldGard® maize field, including seed treatments:

1. _____
2. _____
3. _____
4. _____

Full commercial name of herbicides you applied in YieldGard® maize field:

1. _____
2. _____
3. _____
4. _____

Full commercial name of fungicides you applied in YieldGard® maize field:

1. _____
2. _____
3. _____
4. _____

In 2009, how were the weed and pest control practices in YieldGard® maize when compared to conventional maize?

Insecticides: Similar Different, because: _____

Herbicides: Similar Different, because: _____

Fungicides: Similar Different, because: _____

In 2009, did you change maize borer control practices in YieldGard® maize when compared to conventional maize?

Similar Changed, because: _____

In 2009, how were the fertilizer application practices in YieldGard® maize when compared to conventional maize?

Similar Changed, because: _____

In 2009, how were the irrigation practices in YieldGard® maize when compared to conventional maize?

Similar Changed, because: _____

Did you harvest YieldGard® maize earlier or later than conventional maize?

Similar Earlier Later Because: _____

3.2 Characteristics of YieldGard® maize in the field (compared to conventional maize)

Germination vigour As usual More vigorous Less vigorous

Time to emergence As usual Accelerated Delayed

Time to male flowering As usual Accelerated Delayed

Plant growth and development As usual Accelerated Delayed

Incidence of stalk/root lodging As usual More often Less often

Time to maturity As usual Accelerated Delayed

Yield As usual Higher yield Lower yield

Occurrence of volunteers from previous year planting (if relevant) As usual More often Less often

If any of the answers above is different from «As usual», please specify:

Please detail any additional unusual observations regarding the YieldGard® maize during its growth: _____

3.3 Characterise the YieldGard® maize susceptibility to disease (compared to conventional maize)

Overall assessment of disease susceptibility of YieldGard® maize compared to conventional maize (fungal, viral diseases):

- As usual More susceptible⁴ Less susceptible⁴

If the above answer is different from «As usual», please specify the difference in disease susceptibility in the list and the commentary section below:

- | | | |
|--|----------------------------|----------------------------|
| 1. <i>Fusarium</i> spp | <input type="radio"/> More | <input type="radio"/> Less |
| 2. <i>Ustilago maydis</i> = <i>U. zeae</i> | <input type="radio"/> More | <input type="radio"/> Less |
| 3. xxx | <input type="radio"/> More | <input type="radio"/> Less |
| 4. xxx | <input type="radio"/> More | <input type="radio"/> Less |
| 5. xxx | <input type="radio"/> More | <input type="radio"/> Less |
| 6. Other: _____ | <input type="radio"/> More | <input type="radio"/> Less |

Additional comments: _____

3.4 Characterise the INSECT pest control in YieldGard® maize fields (compared to conventional maize)

On the two insects controlled by YieldGard® maize, overall efficacy of the GM varieties on:

1. European corn borer (*Ostrinia nubilalis*):
- Very good Good Weak Don't Know
2. Pink borer (*Sesamia* spp):
- Very good Good Weak Don't Know

Additional comments: _____

3.5 Characterise the YieldGard® maize susceptibility to OTHER pests susceptibility (compared to conventional maize)

Except the two insects mentioned above, overall assessment of pest susceptibility of YieldGard® maize compared to conventional maize (insect, mite, nematode pests):

- As usual More susceptible Less susceptible

⁴ More susceptible than conventional maize or Less susceptible than conventional maize

If the above answer is different from «As usual», please specify the difference in pest susceptibility in the list and the commentary section below:

- | | | | |
|----------|-------|----------------------------|----------------------------|
| 1. _____ | _____ | <input type="radio"/> More | <input type="radio"/> Less |
| 2. _____ | _____ | <input type="radio"/> More | <input type="radio"/> Less |
| 3. _____ | _____ | <input type="radio"/> More | <input type="radio"/> Less |
| 4. _____ | _____ | <input type="radio"/> More | <input type="radio"/> Less |
| 5. _____ | _____ | <input type="radio"/> More | <input type="radio"/> Less |

Additional comments: _____

3.6 Characterise the weed pressure in YieldGard® maize fields (compared to conventional maize)

Overall assessment of the weed pressure in YieldGard® maize compared to conventional maize:

- As usual More weeds Less weeds

List the three most abundant weeds in your YieldGard® maize field:

- | | |
|----------|-------|
| 1. _____ | _____ |
| 2. _____ | _____ |
| 3. _____ | _____ |

Were there any unusual observations regarding the occurrence of weeds in YieldGard® maize? _____

3.7 Occurrence of wildlife in YieldGard® maize fields (compared to conventional maize)

General impression of the occurrence of wildlife (insects, birds, and mammals) in YieldGard® maize compared to conventional maize fields:

Occurrence of insects (arthropods):

- As usual More Less Do not know

If the answer above is «More» or «Less», please specify your observation:

Occurrence of birds:

- As usual
 More
 Less
 Do not know

If the answer above is «More» or «Less», please specify your observation:

Occurrence of mammals:

- As usual
 More
 Less
 Do not know

If the answer above is «More» or «Less», please specify your observation:

3.8 Feed use of YieldGard® maize (if previous year experience with this event)

Did you use the YieldGard® maize harvest for animal feed on your farm?

- Yes
 No

If “Yes”, please give your general impression of the performance of the animals fed YieldGard® maize compared to animals fed conventional maize.

- As usual
 Different
 Do not know

If the answer above is «Different», please specify your observation:

3.9 Any additional remarks or observations [e.g. from fields planted with event xxxx that were not selected for the survey]

4 Implementation of Bt-maize specific measures

4.1 Have you been informed on good agricultural practices for YieldGard® maize?

- Yes No

Only if you answered “Yes”, would you evaluate these technical sessions as:

- Very useful Useful Not useful

4.2 Seed

Was the seed bag labelled with accompanying specific documentation indicating that the product is genetically modified maize YieldGard® maize?

- Yes No

Did you comply with the label recommendations on seed bags?

- Yes
 No, because: _____

4.3 Prevention of insect resistance

Did you plant a refuge in accordance to the technical guidelines?

- Yes
 No, because the surface of YieldGard® maize planted on the farm is < 5 ha
 No, because _____

