

**AGRI-ENVIRONMENTAL SUPPORT PLAN**

**PAA** **2022-2023**

The Agri-environmental Support Plan (Plan d’accompagnement agroenvironnemental - PAA) is an initiative whose goal is to analyze the overall status of your agricultural business and design an agri-environmental intervention plan adapted to said status.

A PAA is required to obtain various types of financial assistance from the Ministère de l’Agriculture, des Pêcheries et de l’Alimentation (MAPAQ). Such assistance is intended to address agri-environmental issues, particularly though the Prime-Vert program and the 2018-2023 Advisory Services Program. A PAA must therefore be sent to MAPAQ for the analysis of financial assistance applications. Please note that, as MAPAQ representatives, the Agricultural Advisory Networks assume the payment of professional fees associated with PAA development, provided that the conditions described in the 2018-2023 Advisory Services Program are met.

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| 1. **Farm Business Information** | | | | | | |
| **Farm Business’s Legal Name** | | | | **Department Identification Number (NIM)** | | |
| **Name of Contact Person** | | | | **Please Specify the Position of the Contact Person**  Owner  Administrator  Authorized Agent | | |
| **Mailing Address** | | | |
| **Home Phone** | | **Cell Phone** | | **Fax** | | **Email Address** |
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| 1. **PAA Summary** | | | | | | |

**Overall Assessment Summary Result**

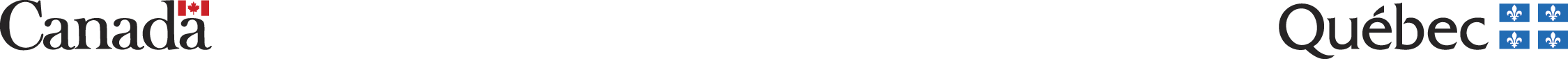
**Good agricultural practices currently in use** *(if necessary)*

**Priority actions for the business** *(if necessary)*

**Comments** *(if necessary)*

**The PAA is to be completed by the agronomist in collaboration with the agricultural producer.**

**Both must sign the document.**

 Retain this document. You may need it to access financial assistance from the government.

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| 1. **2022** **Action Plan** |

The purpose of this action plan is to identify (and prioritize) actions to be carried out as part of an integrated agri-environmental management approach.

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| **Table 1: Recommended actions** | | | | | | | | | | |
| **Action code** | **Order of priority\*** | **Financing method\*\*** | **Recommended actions** | **Fields, lots, greenhouses or associated crops**  *(optional)* | **Estimated number of advisory hours in 2022-2023** | **Indicator** | **Initial farm status** | **Desired objective upon action completion** | **Completion slated for 2022‑2023** | **Comments**  *(optional)* |
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\* Order of priority: 1 = high; 2 = medium; 3 = low.

\*\* Financing method: SCA = Agri-environmental Advisory Services; PV = Prime-Vert; NS = Non-subsidized.

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| **Table 2: List of Improvements** | | | |
| **Question number** | **List of improvements identified in the overall assessment** | **Fields, lots, greenhouses or associated crops**  **and comments**  *(optional)* | **Recommended actions regarding areas for improvement** |
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| 1. **Signatures** |

The PAA must be sent to MAPAQ so that the latter can assume its support responsibilities, most notably the establishment of priority actions and a financial assistance plan. The PAA must also be sent to the Ministère de l’Agriculture, des Pêcheries et de l’Alimentation so that certain financial assistance applications can be analyzed and document conformity can be validated. Failure to provide a PAA could result in ineligibility for programs that require it.

The personal and confidential information that you provide to MAPAQ, and the information that MAPAQ will record in your file, is secure and may only be disclosed in accordance with the Act respecting Access to documents held by public bodies and the Protection of personal information (RLRQ, Chapter A 2.1). Only MAPAQ personnel and, when necessary, its duly authorized representatives will have access to it in the context of executing this mandate. You may consult, obtain a copy of or have your personal information corrected, in compliance with the provisions of the Act.

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| **Declaration and Signature of the Agronomist** | | | | | | | | |
| **Agri-Environmental Support Plan (PAA) Implementation**  I certify that this PAA has been prepared in accordance with good agricultural practices and the code of ethics of the Ordre des agronomes du Québec and that a copy has been provided to the principal owner of the farm business or his/her authorized agent.  All data have been validated.  Certain data have not been validated. They will be validated between now and      (month and year).  Note: Non-validated data must be validated no later than one year after PAA signature. | | | | | | | | |
| **PAA Action Plan Update** (*to be completed only if there is an update to the Action Plan*)  I certify that I have provided a copy of the PAA Action Plan to the principal owner of the farm business or his/her authorized agent. | | | | | | | | |
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| **Surname and first name of the agronomist (in block capitals)** | | |  | **Issuer’s name** | | | | |
|  | | |  |  | | | | |
| **Business mailing address (number and street)** | | |  | **City** | | | | |
|  |  |  | | | | | | |
| **Postal code** |  | **Email address** | | | | | | |
|  |  |  | | |  |  | | |
| **Work phone** |  | **Alternate number** | | |  | **Fax** | | |
|  | | | |  |  | |  |  |
| **Agronomist’s signature** | | | |  | **OAQ member number** | |  | **Date** |

\* *Regulations require that the PAA signatory validate the information contained in the PAA. This mandate requires a field visit (e.g. verification of the presence of water-dug channels).*

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| **Statement of Undertaking from the Farm Business’s Contact Person** | | |
| **PAA Implementation**  I certify that I have collaborated with the agronomist in the preparation of this PAA and that I have provided him/her with reliable and truthful data based on the information available to me. I also certify that I have received a copy of the PAA and that I have read the action plan contained therein.  To continue the process that I have undertaken with the help of an agri-environmental adviser, I confirm my intention to carry out the actions listed in the PAA action plan during the validity period of the Prime-Vert Program or the 2018‑2023 Advisory Services Program.  I understand that a false declaration may result in a claim for financial assistance amounts already paid to me. | | |
| **PAA Action Plan Update** (*to be completed only if there is an update to the Action Plan*)  I certify that I have read the information described in the action plan for this PAA. | | |
|  |  |  |
| **Contact person’s surname and first name**  Owner  Administrator  Authorized Agent |  | **Signature** |
|  |  |  |
| **NIM** |  | **Farm Business’s Legal Name** |
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| **Date** |  |  |

**Overall Assessment (PAA Questionnaire)**

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| Note :   * The boxes highlighted in yellow  may indicate areas of improvement for the business. |

Please note that PAA questions and actions are grouped under specific sections but may also touch upon several other agri-environmental issues.

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| 1. **Farm Business Profile** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * 1. **Place a check mark next to each type of the business’s production and indicate its importance based on gross revenue (1, 2, 3, etc.).** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Agricultural Production** | | | | | | **Order of Importance** | | | | |  | **Agricultural Production** | | | | | | | | **Order of Importance** | |  | **Agricultural Production** | | | | | | | | | | **Order of Importance** | | | |
| Poultry farming | | | | | |  | | | | |  | Maple sugaring | | | | | | | |  | |  |  | | Potatoes | | | | | | | |  | | | |
| Beef cattle | | | | | |  | | | | |  | Fruit trees | | | | | | | |  | |  |  | | Greenhouse production | | | | | | | |  | | | |
| Dairy cattle | | | | | |  | | | | |  | Field crops | | | | | | | |  | |  |  | | Viticulture | | | | | | | |  | | | |
| Goat farming | | | | | |  | | | | |  | Market gardening | | | | | | | |  | |  |  | | Other | | | | | | | |  | | | |
| Horse farming | | | | | |  | | | | |  | Ornamental horticulture | | | | | | | |  | |  |  | | Please specify | | | | | | | |  | | | |
| Sheep farming | | | | | |  | | | | |  | Berries | | | | | | | |  | |  |  | | | | | | | | | | | | | |
| Pig farming | | | | | |  | | | | |  | Forage plants | | | | | | | |  | |  |  | | | | | | | | | | | | | |
| * 1. **Indicate the following surface areas of operation.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | |
|  | **Surface area** | | | | | |  | **Owned (ha)** | | | | | |  | **Leased (ha)** | |  | |  | | | | |  | |  | | | | | |  |  | | | |
|  | Cultivated | | |  | | |  |  | | | | | |  |  | |  | |  | | | | |  | |  | | | | | |  |  | | | |
|  | Sugar bushes in operation | | | | | |  |  | | | | | |  |  | |  | |
| * 1. **Answer this question if you are reporting crop production.**   **Otherwise, check “Not applicable” and proceed to question 5.4.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **Not applicable** | | | | | | | |
| **Crop** | | | | | **ha** | | | | **Crop** | | | | | | | **ha** |  | **Crop** | | | **ha** | | | | | | **Crop** | | | | | | | | **ha** | |
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| * 1. **Answer this question if you are reporting livestock production.**   **Otherwise, check “Not applicable” and proceed to question 5.5.**  *Note: Specify whether you use a liquid (L), solid (S) or solid and liquid (S + L) livestock waste handling system.* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **Not applicable** | | | | | | |
| **Livestock categories** | | | | | | | | | | **Inventory** (heads) | | | **Type of handling system** | | | |  | **Livestock categories** | | | | | | | | | | **Inventory** (heads) | | | **Type of handling system** | | | | | |
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| * 1. **Your business :** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **Yes** | | | | | **No** | | **ha** |
|  | | a) | is it completely or partially dedicated to organic production (certified or in transition)? | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | |  | |  |
|  | | b) | is it completely or partially certified by the CanadaGAP program? | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | |  | |  |
|  | | c) | has it obtained another type of certification or designation (e.g.: Maïs sucré de Neuville, Vin de glace du Québec, Agneau de Charlevoix)? | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | |  | |  |
|  | | d) | is it considered a succession or is it in the process of becoming a succession? | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | |  | |  |

**Comments**

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| 1. **Adaptation to Climate Change and Reduction of Greenhouse Gas Emissions** | | | | | | |
| *Please note that several issues related to climate change adaptation and greenhouse gas emission reduction are addressed more specifically in other sections of the PAA.* | | | | | | |
| **Adaptation to climate change** | | |  | | | |
|  | | | | **Yes** | **No** | **N/A** |
| * 1. **In recent years, have you or someone in your business participated in a training activity dealing with the impacts of climate change (e.g. symposium, regional information day, field activity, web training)?** | | | |  |  |  |
| * 1. **Are you aware (of some or all) of the expected impacts that climate change will have on your business in terms of the following?** | | | |  |  |  |
|  | a) | Crop management (e.g. cultivar selection, crop modifications) | |  |  |  |
|  | b) | Soil conservation (e.g. soil erosion control) | |  |  |  |
|  | c) | Water availability (e.g. watering, irrigation, drinking water) | |  |  |  |
|  | d) | Livestock welfare (e.g. protection against extreme heat) | |  |  |  |
|  | e) | Pest control (e.g. new crop pests) | |  |  |  |
| * 1. **With respect to your business, have you noticed a change in weather conditions in recent years (e.g. recurrence of extreme events such as flooding, droughts, hail or heat waves)?** | | | |  |  |  |
| * 1. **Are you interested in modifying your crop management techniques (e.g. cultivar selection, crop changes) in response to new climatic conditions?** | | | |  |  |  |
| **Reduction of greenhouse gas emissions** | | |  | | | |
|  | | | | **Yes** | **No** | **N/A** |
| * 1. **Is your business undergoing an energy efficiency assessment or has it undergone one in the last five years?** | | | |  |  |  |
| * 1. **Have any actions been taken to reduce energy consumption over the last five years with respect to the following areas?** | | | |  |  |  |
|  | a) | The drying of grain or hay (e.g. high efficiency dryers, dehumidifiers) | |  |  |  |
|  | b) | Livestock buildings (e.g. air exchangers, radiant mats) | |  |  |  |
|  | c) | Horticultural storage buildings (e.g. building insulation) | |  |  |  |
|  | d) | Greenhouses (e.g. thermal screens, building insulation) | |  |  |  |
|  | e) | Agricultural machinery use (e.g. direct seeding, reduced tillage) | |  |  |  |
|  | f) | Maple sugaring (e.g. high efficiency evaporator) | |  |  |  |
| * 1. **Are you interested in replacing some of the fossil fuels used in your business with an energy source that emits less greenhouse gases (e.g. electrical equipment and motors, biomass heating system)?** | | | |  |  |  |
| * 1. **Are you interested in taking any of the following types of actions?** | | | |  |  |  |
|  | a) | Using or producing crops for energy purposes (e.g. switchgrass, intensive willow production) | |  |  |  |
|  | b) | Using, recovering or treating biogases (e.g. methanization, pyrolysis, treatment system) | |  |  |  |

**Comments**

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| 1. **Farm Fertilizer and Residual Material Management** | | | | | | | | | | | | | | | | | |
| **Answer the following questions if the business cultivates its fields (question 7.21 also applies to businesses that manage an operating sugar bush and questions 7.3, 7.4, 7.20 and 7.21 also apply to greenhouse businesses). Otherwise, check “Not applicable” and proceed to the section “Livestock waste, fertilizing residual materials (FRM) and compost.”** | | | | | | | | | | | **Not applicable** | | | | | | |
| **Fertilization** | | | | | |  | | | | | | | | | | | |
|  | | | | | | | | | | | **Yes** | | **No** | | | | **DK[[1]](#footnote-1)** |
| * 1. **Do certain areas require pH correction?** | | | | | | | | | | |  | |  | | | |  |
| * 1. **Are areas fertilized according to crop needs and soil richness?** | | | | | | | | | | |  | |  | | | |  |
| * 1. **Is equipment calibrated to fertilizer dose?** | | | | | | | | | | |  | |  | | | |  |
| * 1. **Has the cost of fertilization per hectare (or per m2 in the case of greenhouses) and per crop already been calculated for business purposes?** | | | | | | | | | | |  | |  | | | |  |
| * 1. **Have fertilizer trials already been carried out on cultivated fields?** | | | | | | | | | | |  | |  | | | |  |
|  | | | | | | | | | | | **Yes** | | **No** | | | | **N/A** |
| * 1. **Which of the following fertilization tools or practices does the business use?** | | | | | | | | | | |  | |  | | | |  |
|  | a) | | | Tools to better determine plant nitrogen requirements (e.g. nitrate tests, leaf analyses) | | | | | | |  | |  | | | |  |
|  | b) | | | Nitrogen fractionation | | | | | | |  | |  | | | |  |
|  | c) | | | Band applications of fertilizer | | | | | | |  | |  | | | |  |
|  | d) | | | Incorporation or application of ammoniacal fertilizers prior to rainfall (e.g. urea, 32-0-0) | | | | | | |  | |  | | | |  |
| * 1. **Do you use or plan to use fertilizing residual materials (FRM) for any of the following reasons?** | | | | | | | | | | |  | |  | | | |  |
|  | a) | | | To correct or maintain soil pH | | | | | | |  | |  | | | |  |
|  | b) | | | To increase or maintain soil organic matter levels | | | | | | |  | |  | | | |  |
|  | c) | | | To reduce mineral fertilizer purchases | | | | | | |  | |  | | | |  |
| **Livestock waste, fertilizing residual materials (FRM) and compost** | | | | | | | | | | | | | | | | | |
| **Answer the following questions if livestock waste and/or FRM are stored or accumulated on business premises. Otherwise, check “Not applicable” and proceed to question 7.12.** | | | | | | | | | | | **Not applicable** | | | | | | |
|  | | | | | | | | | | | **Yes** | | **No** | | | | **DK** |
| * 1. **Does the business have an exercise yard or does it accumulate livestock waste and/or FRM on the ground (e.g. in piles at the end of a building, in piles on a field, in a wintering pen)?** | | | | | | | | | | |  | |  | | | |  |
| If yes: | a) | | | In your opinion, are investments in development and/or infrastructure needed? | | | | | | |  | |  | | | |  |
|  | b) | | | Did you notice any runoff? | | | | | | |  | |  | | | |  |
| * 1. **Are field piles used by the business?** | | | | | | | | | | |  | |  | | | |  |
| If yes: | a) | | | Is a watertight storage option available that would prevent or reduce field piles? | | | | | | |  | |  | | | |  |
| **Answer the following questions if at least one storage structure is located on business premises. Otherwise, check “Not applicable” and proceed to question 7.12.** | | | | | | | | | | | **Not applicable** | | | | | | |
|  | | | | | | | | | | | **< 10 years** | | **10-25 years** | | | | **> 25 years** |
| * 1. **How many years has the oldest storage structure been in place?** | | | | | | | | | | |  | |  | | | |  |
|  | | | | | | | | | | | **Yes** | | **No** | | | | **DK** |
| * 1. **Does at least one storage structure require modifications?** | | | | | | | | | | |  | |  | | | |  |
| If yes: | a) | | | What changes need to be made? (*Check all that apply.*) | | | | | | |  | |  | | **Response** | | |
|  | |  | a.1) | | Expansion | | |  |  | | | | |  | |  | |
|  | |  | a.2) | | Repairs | | |  |  | | | | |  | |  | |
|  | |  | a.3) | | Replacement | | |  |  | | | | |  | |  | |
|  | |  | a.4) | | Other modifications (e.g. roof installation) | | |  |  | | | | |  | |  | |
| **Answer the following questions if livestock waste, FRM or compost is spread on the business’s cultivated fields. Otherwise, check “Not applicable” and proceed to question 7.18.** | | | | | | | | | | | **Not applicable** | | | | | | |
|  | | | | | | | **Yes** | | | **Some-times** | | **No** | | | | |  | |
| * 1. **Do you take into account fertilizer inputs from livestock waste, FRM or compost before fertilizing?** | | | | | | |  | | |  | |  | | | | |  | |
| * 1. **Is the spreading of livestock waste, FRM or compost contracted out?** | | | | | | |  | | |  | |  | | | | |  | |
| * 1. **Do you monitor the work being done when livestock waste, FRM or compost is spread (e.g. time, doses, soil bearing capacity)?** | | | | | | |  | | |  | |  | | | | |  | |

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|  | | | | | | | **Yes** | | | | **Some-times** | | | **No** | | | | | | | **N/A** | | | | |
| * 1. **With the exception of perennial plants, is livestock waste rapidly incorporated into the soil after spreading (e.g. within 24 hours) to conserve fertilizer nutrients?** | | | | | | |  | | | |  | | |  | | | | | | |  | | | | |
|  | | | | | | | | | | | | **Yes** | | | **Some-times** | | | | | | **No** | | | |
| * 1. **Are post-harvest applications of livestock waste, FRM or compost spread in areas without winter protection (e.g. cover crops, crop residues, winter cereals, grasslands) or subsequent incorporation?** | | | | | | | | | | | |  | | |  | | | | | |  | | | |
|  | | | | | | | | | | | |  | | | | | | | | **Number** | | | | |
| * 1. **How many livestock waste, FRM or compost spreading sites are treated each season?** | | | | | | | | | | | |  | | | | | | | |  | | | | |
| **Answer the following questions if the business has grazing livestock.**  **Otherwise, check “Not applicable” and proceed to the section “Other residual materials.”** | | | | | | | | | | | | **Not applicable** | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | **Yes** | | | | | | **No** | | |
| * 1. **Does the business have a rotational grazing plan for livestock?** | | | | | | | | | | | | | | | |  | | | | | |  | | |
| * 1. **Is each parcel’s water supply optimal for the livestock in question (e.g. volume, flow, quality)?** | | | | | | | | | | | | | | | |  | | | | | |  | | |
| **Other residual materials** | | | | | |  | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | **Yes** | | | | | | **No** | | |
| * 1. **Does the business manage crop residues or residues from the processing of fruits and vegetables?** | | | | | | | | | | | | | | | |  | | | | | |  | | |
| If yes: | a) | | How are plant residues managed?(*Check all that apply.*) | | | | | | | | | | | |  | | | | **Response** | | | | | |
|  | |  | a.1) | Fresh residues are applied to cultivated fields. | | | |  | |  | | |  | | | | | | |  | | | | |
|  | |  | a.2) | Residues are composted and then recycled as soil amendments or fertilizers. | | | |  | |  | | |  | | | | | | |  | | | | |
|  | |  | a.3) | They are used in livestock feed. | | | |  | |  | | |  | | | | | | |  | | | | |
|  | |  | a.4) | They are exported. | | | |  | |  | | |  | | | | | | |  | | | | |
|  | |  | a.5) | They are gathered in unused piles. | | | |  | |  | | |  | | | | | | |  | | | | |
|  | |  | a.6) | They are buried. | | | |  | |  | | |  | | | | | | |  | | | | |
|  | |  | a.7) | Other. | | | |  | |  | | |  | | | | | | |  | | | | |
|  | | | | | | | | | | | | | | | | | **Yes** | | | | | **No** | | |
| * 1. **Does the business practise agricultural plastic management (e.g. horticultural, silage, greenhouse, maple sugaring)?** | | | | | | | | | | | | | | | | |  | | | | | |  | |
| If yes: | a) | | Do you know if any recycling points or centres exist in your area? | | | | | | | | | | | | | |  | | | | | |  | |
|  | b) | | Do you believe that the business’s management of agricultural plastics is environmentally sound? | | | | | | | | | | | | | |  | | | | | |  | |
| If not: | | | b.1) | Would you be willing to do more to manage these plastics at the end of their normal life cycle? | | | | | | | | | | | | |  | | | | | |  | |
| **Precision Agriculture** | | | | |  | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | |  | | | | | | | | | **Yes** | | | | | | **No** |
| * 1. **Are you using or planning on using precision agriculture tools or techniques to reduce the amount of fertilizer that you apply at your farm (for example, applying variable rate fertilizers, using sensors, yield maps, management zones)?** | | | | | | | | | | | | | | | | | |  | | | | | |  |

**Comments**

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| 1. **Soil Health and Conservation** | | | | | | | | | | | | | | | | | | | | | | |
| **Complete this section if the business has cultivated fields (questions 8.6, 8.11.a) and 8.11.c) also apply to businesses that manage an operating sugar bush).**  **Otherwise, check “Not applicable” and proceed to section 9.** | | | | | | | | | | | **Not applicable** | | | | | | | | | | | |
| **Practices that promote soil health and conservation** | | | | | | | | |  | |  | | | | | |  | | | | | |
|  | | | | | | | | | | | | **Yes** | | | | | | **No** | | | | |
| * 1. **Do the business’s crop rotations include three or more crops?** | | | | | | | | | | | |  | | | | | |  | | | | |
| * 1. **Which of the following tillage types does the business use on its cultivated fields?**[[2]](#footnote-2) | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | **Fall (ha)** | | | | | | | | **Spring (ha)** | | | | | | | | | |
|  | a) | | Annual practices, conventional tillage | |  | | | | | | | |  | | | | | | | | | |
|  | b) | | Annual practices, reduced tillage | |  | | | | | | | |  | | | | | | | | | |
|  | c) | | Annual practices, direct seeding | |  | | | | | | | |  | | | | | | | | | |
|  | d) | | Permanent-ridge tillage | |  | | | | | | | |  | | | | | | | | | |
|  | | | | | | | | | | | | **Yes** | | | | | | **No** | | | | |
| * 1. **Does the business grow cover crops?** | | | | | | | | | | | |  | | | | | |  | | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | If yes: | a) | Do you take into account the fertilizer inputs of these cover crops before fertilizing? |  |  |  |  | | | | | | | | | | | | |  | | | | | |  | | | | |
| * 1. **During the winter, how many hectares of land are protected by a plant cover consisting of:** | | | | | | | | | | | | | | | | | | | | **ha** | | |
|  | a) | | cover crops? | | | | |  | | | | | | | | | | | |  | | |
|  | b) | | winter crops (winter wheat, winter rye)? | | | | |  | | | | | | | | | | | |  | | |
|  | c) | | grasslands and pastures? | | | | |  | | | | | | | | | | | |  | | |
|  | d) | | permanent crops (e.g. orchards, raspberries)? | | | | |  | | | | | | | | | | | |  | | |
|  | e) | | 30% or more crop residue after sowing[[3]](#footnote-3) (excluding areas indicated in questions 8.4a to 8.4d)? | | | | | | | | | | | | | | | | |  | | |
|  | | | | | | | | | | | | **Yes** | | | | | | **No** | | | | |
| * 1. **Do cultivated areas include orchards, Christmas trees, berries or other permanent crops with row spacing?** | | | | | | | | | | | |  | | | | | |  | | | | |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | If yes: | a) | What percentage of the land is protected during the winter (e.g. organic mulch, grass, cover crops)? |  |  |  | |  |  | | | | | | | | | | | | | | | | | | | |  | | | |
| **Soil condition assessment** | | | | | | | | |  | |  | | | | | |  | | | | | |
|  | | | | | | | | | | | | | | | | **Yes** | | | | | **No** | |
| * 1. **Even in good years, do fields (or lots in the case of maple groves) produce unsatisfactory yields on a recurring basis?** | | | | | | | | | | | | | | | |  | | | | |  | |
| * 1. **Has the business’s soil been profiled in the last five years?** | | | | | | | | | | | | | | | |  | | | | |  | |
| * 1. **Have any “Soil Health Assessments” (detailed and targeted assessments) been conducted on the business’s land in the last five years?** | | | | | | | | | | | | | | | |  | | | | |  | |
| * 1. **Do cultivated fields have a slope of over 5%?** | | | | | | | | | | | | | | | |  | | | | |  | |
| * 1. **Do you notice the following (on a reoccurring basis) in one or more fields:** | | | | | |  | | | |  | | | | | **Does this impact yield?** | | | | | | | | |
|  | | | | | | **Yes** | | | | **No** | | | | | **Yes** | | | | | | | **No** | |
|  | | a) | | persistent pools of water or areas where the soil is permanently wet? | |  | | | |  | | | | |  | | | | | | |  | |
|  | | b) | | the presence of basins or depressions? | |  | | | |  | | | | |  | | | | | | |  | |
|  | | c) | | an accumulation of soil particles in certain locations (e.g. at the bottom of slopes)? | |  | | | |  | | | | |  | | | | | | |  | |
|  | | d) | | water-dug channels? | |  | | | |  | | | | |  | | | | | | |  | |
|  | | e) | | crusting (soil capping) problems on the soil surface? | |  | | | |  | | | | |  | | | | | | |  | |
|  | | f) | | soil particles being transported by the wind? | |  | | | |  | | | | |  | | | | | | |  | |
|  | | g) | | organic matter level decreases? | |  | | | |  | | | | |  | | | | | | |  | |
| **Compaction** | | | | | | |  | | | |  | | | | | |  | | | | | |
| * 1. **In one or more fields (or lots in the case of maple groves), have you noticed:** | | | | | |  | | | |  | | | | | **Does this impact yield?** | | | | | | | | |
|  | | | | | | **Yes** | | | | **No** | | | | | **Yes** | | | | | | | **No** | |
|  | | a) | | track marks caused by the passage of machinery? | |  | | | |  | | | | |  | | | | | | |  | |
|  | | b) | | places where your work equipment has difficulty penetrating the ground? | |  | | | |  | | | | |  | | | | | | |  | |
|  | | c) | | other signs of soil compaction? | |  | | | |  | | | | |  | | | | | | |  | |
| * 1. **Has a subsoiler been used on cultivated fields in the last five years?** | | | | | | | | | | | | | |  | | | | | | | |  | |
| * 1. **Have the axle loads of agricultural machinery already been calculated?** | | | | | | | | | | | | | |  | | | | | | | |  | |
| * 1. **Are there any planned works to limit the number of machines passing through fields or to limit their passage to certain times and places?** | | | | | | | | | | | | | |  | | | | | | | |  | |
| * 1. **Is the tire pressure of the agricultural machinery used adjusted regularly?** | | | | | | | | | | | | | |  | | | | | | | |  | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Yes** | | | **No** | | | **N/A** |
| * 1. **Are tractors equipped with dual wheels, wide wheels, low-pressure wheels (IF and VF tires) or tracks?** | |  | | |  | | |  |
|  | | | | **Yes** | | | **No** | |
| * 1. **Do certain cultivated fields have subsurface drainage?** | | | |  | | |  | |
| If yes: a) In certain areas, is crop growth superior when crops are located above the drains as opposed to when they are located between the drains? | | | |  | | |  | |
| **Drainage and soil management** |  | | | | | | | |
|  | | | | | | **Response** | | |
| * 1. **What is the approximate percentage of cultivated fields having subsurface drainage?** | | | | | | % | | |
| * 1. **What is the approximate percentage of cultivated fields that have been levelled using a laser or GPS system to improve drainage?** | | |  | | | % | | |
|  | | **Yes** | | | **No** | | | **N/A** |
| * 1. **Are cover crops generally planted after levelling operations?** | |  | | |  | | |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Precision Agriculture** |  | | | |
|  | |  | **Yes** | **No** |
| * 1. **Are you using or planning on using precision agriculture tools or techniques to improve soil health and conservation (using satellite images, using on-board sensors for soil mapping)** | | |  |  |

**Comments**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. **Water management and agricultural use** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Erosion control** | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Answer the following questions if any watercourses or ditches are found near your cultivated fields. Otherwise, check “Not applicable” and proceed to the section “Water sampling and use.”** | | | | | | | | | | | | | | | | | | | | **Not applicable** | | | | | | | | | | | | | |
|  | | | | | | | | | | | | **< 1 m** | | | | | | **1-3 m** | | | | | **> 3m** | | | | | | | **N/A** | | |
| * 1. **What is the uncultivated riparian buffer width on the berm bench[[4]](#footnote-4) along watercourses?** | | | | | | | | | | | |  | | | | | |  | | | | |  | | | | | | |  | | |
|  | | | | | | | | | | | | | | | | | | | | | | | **Yes** | | | | | | | | **No** | |
| * 1. **Are there any recesses, runnels or gullies bordering watercourses or ditches?** | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | |  | |
| If yes: | | a) | | What measures have been taken to prevent these problems over the last five years? (*Check all that apply.*) | | | | | | | | |  | | | | | | | | | | |  | | | **Response** | | | | | |
|  |  | | | | a.1) | | Reduced tillage | | | |  | | | |  | | | | |  | | | | | | | | | | |  | |
|  |  | | | | a.2) | | Perennial crops | | | |  | | | |  | | | | |  | | | | | | | | | | |  | |
|  |  | | | | a.3) | | Cover crops | | | |  | | | |  | | | | |  | | | | | | | | | | |  | |
|  |  | | | | a.4) | | Extended riparian buffers | | | |  | | | |  | | | | |  | | | | | | | | | | |  | |
|  |  | | | | a.5) | | Hydro-agricultural structures (e.g. riprap spillways, sedimentation basin inlets) | | | | | | | | | | | | | | | | | | | | | | | |  | |
|  |  | | | | a.6) | | No specific interventions | | | |  | | | |  | | | | |  | | | | | | | | | | |  | |
|  | | | | | | | | | | | | | | | | **Oui** | | | | | | **Non** | | | | | | | | | **S. O.** | |
| * 1. **Are there any signs of ditch bed scouring?** | | | | | | | | | | | | | | | |  | | | | | |  | | | | | | | | |  | |
| * 1. **Are any cultivated fields located on the shores of lakes or rivers (0-2-year floodplain)?** | | | | | | | | | | | | | | | |  | | | | | |  | | | | | | | | |  | |
| If yes: | | a) | | Do you adapt your farming practices to help protect these areas? | | | | | | | | | | | | |  | | | | | |  | | | | | | | |  | |
| **Water sampling and use** | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | |
| **Answer the following questions if you take samples of the water used for livestock watering[[5]](#footnote-5), crop irrigation[[6]](#footnote-6) and/or the washing/processing of farm fruits and vegetables.**  **Otherwise, check “Not applicable” and proceed to question 9.12.** | | | | | | | | | | | | | | | | | | | | | **Not applicable** | | | | | | | | | | | |
| * 1. **Where does the business’s water come from?** (*Check all that apply.*) | | | | | | | | | |  | | | | | | | | |  | | | | | | **Response** | | | | | | | |
|  | | a) | | Water supply system | | | | | | | | |  | | | | | | | | | | |  | | | |  | | | | |
|  | | b) | | Surface water | | | | | | | | |  | | | | | | | | | | |  | | | |  | | | | |
|  | | c) | | Ground water | | | | | | | | |  | | | | | | | | | | |  | | | |  | | | | |
|  | | | | | | | | | | | | | | | | **Yes** | | | | | | **Partial use** | | | | | | | | | **No** | |
| * 1. **Is an instrument used to measure sampled volumes of water (e.g. water meter, rain gauge estimate)?** | | | | | | | | | | | | | | | |  | | | | | |  | | | | | | | | |  | |
|  | | | | | | | | | | | | | | | | | | | | | | | **Yes** | | | | | | | | **No** | |
| * 1. **Are any methods or tools used to minimize water sampling?** | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | |  | |
| If yes: | | a) | | Do these tools pertain to any of the following? (*Check all that apply.*) | | | | | | | | | | | | | | | | | | | |  | | **Response** | | | | | | |
|  | |  | | | a.1) | | Livestock watering | | | | | | |  | | | | | | |  | | | | | | | |  | | | |
|  | |  | | | a.2) | | The washing or processing of fruits and vegetables | | | | | | |  | | | | | | |  | | | | | | | |  | | | |
|  | |  | | | a.3) | | Irrigation | | | | | | |  | | | | | | |  | | | | | | | |  | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | **Yes** | | | | | | | | **No** | |
| * 1. **Is water tested to determine its quality?** | | | | | | | | | | | |  | | | | | | | | | | |  | | | | | | | |  | |
| If yes: | | a) | | Do these tests pertain to any of the following? (*Check all that apply.*) | | | | | | | | | | | | | | | | | | | |  | | **Response** | | | | | | |
|  | |  | a.1) | | | Livestock watering | | | | | | | |  | | | | | | |  | | | | | | | |  | | | |
|  | |  | a.2) | | | The washing or processing of fruits and vegetables | | | | | | | |  | | | | | | |  | | | | | | | |  | | | |
|  | |  | a.3) | | | Irrigation | | | | | | | |  | | | | | | |  | | | | | | | |  | | | |
|  | | | | | | | | | | | | | | | | | **Yes** | | | | | | **No** | | | | | | | | | **N/A** | | |
| * 1. **Are specific management tools used to improve water quality (e.g. pond aerators, filtration, chlorination)?** | | | | | | | | | | | | | | | | |  | | | | | |  | | | | | | | | |  | | |
| * 1. **Are tools used to manage water inputs during irrigation (e.g. tensiometers, water balances, TDR probes)?** | | | | | | | | | | | | | | | | |  | | | | | |  | | | | | | | | |  | | |
| * 1. **Does the business rely on a technical consultant for irrigation system management (e.g. water inflow doses and frequency, adjustment or choice of equipment)?** | | | | | | | | | | | | | | | | |  | | | | | |  | | | | | | | | |  | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Answer the following questions if there are drinking water wells within 100 m of livestock facilities (buildings, exercise yards) or cultivated fields (questions 9.12, 9.14 and 9.15 also apply to businesses that manage an operating sugar bush).**  **Otherwise, check “Not applicable” and proceed to the section “Wastewater discharges.”** | | | | | | | | | | | | **Not applicable** | | | | | | | | | |
|  | | | | | | | | | **Yes** | | | | **No** | | | | | | **DK** | | |
| * 1. **Are all wells on the premises easily identifiable?** | | | | | | | | |  | | | |  | | | | | |  | | |
| * 1. **Are you familiar with the separation distances for protecting wells during agricultural input applications?** | | | | | | | | |  | | | |  | | | | | |  | | |
|  | | | | | | **< 1 year** | **1 year** | | | **2-5 years** | | | | **> 5 years** | | | | | | **N/A** | |
| * 1. **On average, how much time passes before tests are conducted on the business’s well water?** | | | | | |  |  | | |  | | | |  | | | | | |  | |
| **Wastewater discharges** | | | | |  | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | **Yes** | | | | | **No** | |
| * 1. **Does the business engage in wastewater management (e.g. management of the water used for washing the milkhouse, fruits, vegetables or maple sugaring equipment, for greenhouse nutrient solutions or for processing)?** | | | | | | | | | | | | | | |  | | | | |  | |
| If yes: | a) | | What wastewater management techniques are used?(*Check all that apply.*) | | | | | | | | | | | | |  | **Response** | | | |
|  | |  | a.1) | Wastewater is used on cultivated fields. | | | |  | | |  |  | | | | | |  | | | |
|  | |  | a.2) | Wastewater is deposited in a storage structure. | | | |  | | |  |  | | | | | |  | | | |
|  | |  | a.3) | Wastewater is exported. | | | |  | | |  |  | | | | | |  | | | |
|  | |  | a.4) | Wastewater is treated (e.g. septic drain field, filter marsh). | | | |  | | |  |  | | | | | |  | | | |
|  | |  | a.5) | Wastewater is released into the natural environment (e.g. ditch, watercourse, forest). | | | |  | | |  |  | | | | | |  | | | |
|  | |  | a.6) | Wastewater is discharged into a municipal sewer system. | | | |  | | |  |  | | | | | |  | | | |
|  | |  | a.7) | Other disposal method. | | | |  | | |  |  | | | | | |  | | | |

**Comments**

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| 1. **Integrated pest management** | | | | | | | | | | | | | | | | | |
| **Answer the following questions if you have cultivated land in a field or greenhouse (questions 10.1 and 10.4 also apply to businesses that manage an operating sugar bush).**  **Otherwise, check “Not applicable” and proceed to section 11.** | | | | | | | | | | | **Not applicable** | | | | | | |
| **Knowledge** | | | | |  | | | | | |  | | | |  | | |
|  | | | | | | | | | | | | **Yes** | | | | **No** | |
| * 1. **In the past year, have you or someone in your business participated in at least one training activity related to crop protection (e.g. symposium, regional information day, field activity, web training)?** | | | | | | | | | | | |  | | | |  | |
|  | | | | | | | **All or most of the time** | | **On occasion** | | | **Rarely or never** | | | | **N/A** | |
| * 1. **Does your business use information issued by the Quebec Plant Protection Warning Network?** | | | | | | |  | |  | | |  | | | |  | |
| **Prevention** | | | | |  | | | | | | | | | | | | |
| * 1. **Are insect and disease resistant or tolerant cultivars used (when cultivar selection allows)?** | | | | | | |  | |  | | |  | | | |  | |
| * 1. **When choosing a pesticide, do you consider its impact on beneficial mites and insects, including pollinators?** | | | | | | |  | |  | | |  | | | |  | |
| * 1. **When the choice of authorized products allows, do you vary the pesticide groups used to take into account the risk of resistance development?** | | | | | | |  | |  | | |  | | | |  | |
|  | | | | | | | | | | | | **Yes** | | | | **No** | |
| * 1. **Do you suspect that there are pesticide-resistant crop pests in your cultivated fields?** | | | | | | | | | | | |  | | | |  | |
| If yes: | a) | | Have available tests been carried out to confirm resistance? | | | | | | | | | | |  | | |  |
| **Follow up (screening and monitoring)** | | | | |  | | | | | | | | | | | | |
|  | | | | | | **Field crops** | | | | | | **Horticulture** | | | | | |
| * 1. **Approximately what percentage of your land is screened for:** | | | | | | **Annuals** | | **Perennials** | | | | **Annuals[[7]](#footnote-7)** | | | | **Perennials** | |
|  | | a) | | weeds? | | **%** | | **%** | | | | **%** | | | | **%** | |
|  | | b) | | plant diseases? | | **%** | | **%** | | | | **%** | | | | **%** | |
|  | | c) | | insects and mites? | | **%** | | **%** | | | | **%** | | | | **%** | |
|  | | | | | | | **All or most of the time** | | **On occasion** | | | **Rarely or never** | | | | **N/A** | |
| * 1. **Is the decision to apply an insecticide or fungicide based on action thresholds or predictive models (available and validated in Quebec)?** | | | | | | |  | |  | | |  | | | |  | |
| **Intervention** | | | | |  | | | | | | | | | | | | |
| * 1. **Does your business take into account the health risk index (HRI) or environment risk index (ERI) when choosing pesticides (e.g. SAgE pesticides)?** | | | | | | |  | |  | | |  | | | |  | |
|  | | | | | | | | | | **Yes** | | | **No** | | | **N/A** | |
| * 1. **Does the business contract out pesticide applications?** | | | | | | | | | |  | | |  | | |  | |
| If yes: | | a) | | Is there any monitoring of the contracted work (e.g. crop stage, products, doses and volumes of slurry applied)? | | | | | |  | | |  | | |  | |
|  | | | | | | **Field crops** | | | | | | **Horticulture** | | | | | |
| * 1. **Approximately what percentage of your land is subject to:** | | | | | | **Annuals** | | **Perennials** | | | | **Annuals4** | | | | **Perennials** | |
|  | | a) | | reduced herbicide use (e.g. spot application, band application)? | | **%** | | **%** | | | | **%** | | | | **%** | |
|  | | b) | | weed control methods other than synthetic herbicides (e.g. mechanical, physical, manual)? | | **%** | | **%** | | | | **%** | | | | **%** | |
|  | | c) | | pest control methods other than synthetic insecticides (e.g. predators, bioinsecticides, trap crops, sexual confusion, insect netting)? | | **%** | | **%** | | | | **%** | | | | **%** | |
|  | | d) | | fungus control methods other than synthetic fungicides (e.g. biofungicides)? | | **%** | | **%** | | | | **%** | | | | **%** | |
| * 1. **Of the seeded areas not treated with insecticides (neonicotinoids or other insecticide families), what percentage of land is subject to such treatment methods?** | | | | | | | | | | | | | | **Response** | | | **N/A** |
|  | | a) | | Field crops | | | | | | | | | | **%** | |  | |
|  | | b) | | Horticulture | | | | | | | | | | **%** | |  | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Evaluation and feedback** | | | | |  | | | | | | | | | | | | | | | |
|  | | | | | | | | **Yes** | | | | | | | **No** | | | | **N/A** | |
| * 1. **Does the business keep a record of phytosanitary interventions?** | | | | | | | |  | | | | | | |  | | | |  | |
|  | | | | | | **All or most of the time** | **On occasion** | | | | | | | **Rarely or never** | | | | | **N/A** | |
| If yes: | a) | | Are data from this record used to plan both in-season interventions and interventions for future growing seasons? | | |  |  | | | | | | |  | | | | |  | |
| * 1. **Does the business monitor phytosanitary intervention efficacy?** | | | | | |  |  | | | | | | |  | | | | |  | |
| **Pesticide and protective equipment management** | | | | |  | | | | | | | | | | | | | | | |
| **Answer the following questions if pesticides or biopesticides are applied by you or one of your employees. Otherwise, check “Not applicable” and proceed to section 11.** | | | | | | | | | | | | | **Not applicable** | | | | | | | |
|  | | | | | | **All or most of the time** | **On occasion** | | | | | | | **Rarely or never** | | | | | **N/A** | |
| * 1. **Are pesticides applied early in the morning or late in the evening to protect pollinators?** | | | | | |  |  | | | | | | |  | | | | |  | |
|  | | | | | | | | **Yes** | | | | | | | **No** | | | | **N/A** | |
| * 1. **Are sprayers calibrated at least once a year?** | | | | | | | |  | | | | | | |  | | | |  | |
| * 1. **Is the tractor used for spraying equipped with a cab and special filter?** | | | | | | | |  | | | | | | |  | | | |  | |
| * 1. **Is triple or pressure rinsing typically performed on empty pesticide containers?** | | | | | | | |  | | | | | | |  | | | |  | |
| * 1. **Where are empty pesticide containers and empty seed bags typically placed?**   (*Check one.*) | | | | | | | | | | | | | | | | | | | | **Response** |
|  | a) | | In a place designated for this purpose (e.g. collection sites, points of sale) | | | |  | | | | | | | | | | | | |  |
|  | b) | | With other solid waste | | | |  | | | | | | | | | | | | |  |
|  | c) | | Other | | | |  | | | | | | | | | | | | |  |
| * 1. **How is remaining pesticide slurry typically handled?** (*Check one.*) | | | | | | | | | | | | | | | | | | | | |
|  | a) | | You spray it on crops. | | | |  | | | | | | | | | | | | |  |
|  | b) | | You spray it on grassy fields. | | | |  | | | | | | | | | | | | |  |
|  | c) | | You leave it in the sprayer. | | | |  | | | | | | | | | | | | |  |
|  | d) | | You determine spray volumes carefully in order to avoid any surplus. | | | |  | | | | | | | | | | | | |  |
|  | e) | | You use another method of disposal. | | | |  | | | | | | | | | | | | |  |
|  | | | | | |  | | | **Yes** | | | | | | | **No** | | | | **N/A** |
| * 1. **Do you flush the sprayer’s inner tank?** | | | | | |  | | |  | | | | | | |  | | | |  |
| If yes: | a) | | Where is this flushing typically carried out? (*Check one.*) | | | |  | | | | | | | | | | | | | **Response** |
|  | |  | a.1) | In the field | | | | | | |  |  | | | | | |  | |  |
|  | |  | a.2) | On a grassy surface | | | | | | |  |  | | | | | |  | |  |
|  | |  | a.3) | Over previously treated crops | | | | | | |  |  | | | | | |  | |  |
|  | |  | a.4) | In an area designated for this purpose | | | | | | |  |  | | | | | |  | |  |
|  | |  | a.5) | Elsewhere | | | | | | |  |  | | | | | |  | |  |
|  | | | | | |  | | | | **Yes** | | | | | | | **No** | | | **N/A** |
| * 1. **Are measures taken to prevent pesticide drift?** | | | | | |  | | | |  | | | | | | |  | | |  |
| If yes: | a) | | What measures are taken? (*Check all that apply.*) | | | |  | | | | | | | | | | | | | **Response** |
|  | |  | a.1) | Anti-drift nozzles | | | | | | |  |  | | | | | |  | |  |
|  | |  | a.2) | Windbreak hedges | | | | | | |  |  | | | | | |  | |  |
|  | |  | a.3) | “Tower” or “tunnel” type sprayers (orchards, vineyards, raspberries, Christmas trees, etc.) | | | | | | | | | | | | | | | |  |
|  | |  | a.4) | Applying pesticides during calm weather conditions to avoid drift | | | | | | |  |  | | | | | |  | |  |
|  | |  | a.5) | Other measures | | | | | | |  |  | | | | | |  | |  |
|  | | | | | | | | | | **Yes** | | | | | | | **No** | | | **N/A** |
| * 1. **Has your sprayer been equipped with a check valve or similar device designed to prevent pesticide from contaminating the water supply source when filling?** | | | | | | | | | |  | | | | | | |  | | |  |
| * 1. **Do you provide your employees and/or workers with a re-entry interval register (or similar document) for pesticide-treated areas?** | | | | | | | | | |  | | | | | | |  | | |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | **All or most of the time** | **On occasion** | | **Rarely or never** | | **N/A** | |
| * 1. **In terms of personal protective equipment, which of the following are used to prepare and apply pesticides?** | | | |  |  | |  | |  | |
|  | a) | Chemical-resistant rubber gloves | |  |  | |  | |  | |
|  | b) | Pesticide respirator | |  |  | |  | |  | |
|  | c) | Rubber boots | |  |  | |  | |  | |
|  | d) | Protective clothing (e.g. Tyvek coverall, apron) | |  |  | |  | |  | |
|  | e) | Protective eyewear | |  |  | |  | |  | |
| **Precision Agriculture** | | |  | | | | | | | |
|  | | | | | |  | | **Yes** | | **No** |
| * 1. **Are you using or planning on using precision agriculture tools or techniques to reduce the use of pesticides (for example, doing precision weeding, using an automatic GPS boom section shut-off system for pesticide spraying)?** | | | | | | | |  | |  |

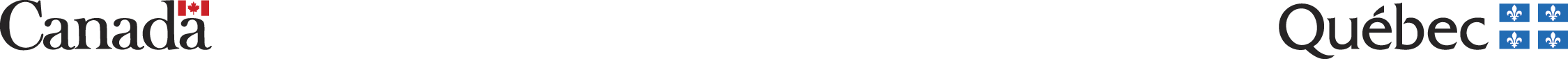
**Comments**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. **Agricultural biodiversity** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| In an agricultural context, the ecological benefits of biodiversity are valuable assets for farmers. Such benefits include the improvement and maintenance of soil fertility, the pollination of numerous plants and the control of pests (be they insects, birds, mammals or amphibians). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * 1. **Are any of the following located on business premises?** | | | | | | | | | | | | | | |  | | | | | **Yes** | | | | | | | **No** | | | | |
|  | | a) | | | Windbreak hedges | | | | | | | | | |  | | | | |  | | | | | | |  | | | | |
|  | | |  | | |  | | | | | | | | | | |  | | | | | | |  | | | | | | | **m2** | |
|  | | |  | | | If yes: | | a.1) | | What is the agricultural surface area covered by windbreak hedges (developed or natural area)? | | | | | | | | | | | | | |  | | | | | |  | | |
|  | | | | | | | | | | | | | | | |  | | | | | | | **Yes** | | | | | | **No** | | | |
|  | | b) | | | Riparian buffers | | | | | | | | | |  | | | | |  | | | | | | |  | | | | |
|  | | |  | | |  | | | | | | | | | | |  | | | | | | |  | | | | | | | **m2** | |
|  | | |  | | | If yes: | | b.1) | | What is the agricultural surface area covered by extended riparian buffers (developed or natural area)? (Do not include the provincial regulatory surface area.) | | | | | | | | | | | | | |  | | | | | |  | | |
|  | | | | | | | | | | | | | | | |  | | | | | | | **Yes** | | | | | | **No** | | | |
|  | | c) | | | Flowered strips or developed hedges | | | | | | | | | |  | | | | |  | | | | | | |  | | | | |
|  | | d) | | | Shelters or structures built for birds, bats or pollinators | | | | | | | | | |  | | | | |  | | | | | | |  | | | | |
|  | | e) | | | Other developed items | | | | | | | | | |  | | | | |  | | | | | | |  | | | | |
|  | | | | | | | | | | | | | | | **Yes** | | | | | **No** | | | | | | | **N/A** | | | | |
| * 1. **Do any watercourses run along or cross your cultivated fields or maple grove(s)?** | | | | | | | | | | | | | | |  | | | | |  | | | | | | |  | | | | |
| If yes: | | a) | | | Approximately, what percentage of each of the following plant species is found in the riparian buffers? | | | | | | | | | |  | | | | | |  | | | | **Response** | | | | | | |
|  | |  | | |  | | a.1) | | Trees or shrubs | | | |  | |  | | | | | |  | | | | | | % | | | | |
|  | |  | | |  | | a.2) | | Herbaceous plants | | | |  | |  | | | | | |  | | | | | | % | | | | |
|  | | | | | | | | | | | | | | |  | | | | | **Yes** | | | | | | | **No** | | | | |
| * 1. **Does the business have one or more ponds, marshes, swamps or bogs?** | | | | | | | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| If yes: | a) | | | Are most of these areas protected by a buffer zone? | | | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
| * 1. **Does the business have water retention systems (e.g. filter marshes, sedimentation ponds, irrigation ponds)?** | | | | | | | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
|  | | | | | | | | | | |  | **0 ha** | | | | | **< 1 ha** | | | | | | **1 to 4 ha** | | | | | **> 4 ha** | | | |
| * 1. **Does the business have any of the following?** | | | | | | | | | | | | | | |  | | | | | | |  | | | |  | | | | | |
|  | | a) | | | Wildlands | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | b) | | | Coulees | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | c) | | | Cultivated fields that are difficult to access using agricultural machinery | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | d) | | | Unproductive cultivated fields | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | | | | | | | | | | | | | | **Yes** | | | | | | **No** | | | | | | **N/A** | | | | |
| * 1. **Are you interested in improving biodiversity around building structures (e.g. using windbreak hedges, flowerbeds or nesting boxes)?** | | | | | | | | | | | | | | |  | | | | | |  | | | | | |  | | | | |
|  | | | | | | | | | | |  | **Yes** | | **No** | | | | | **< 4 ha** | | | | | | | | **> 4 ha** | | | | |
| * 1. **Are there any woodlots:** | | | | | | | | | | |  |  | |  | | | | |  | | | | | | | |  | | | | |
|  | | a) | | | on business premises? | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | |  | | | If yes: | | a.1) | | How many hectares? | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | b) | | | within 500 m of the business’s boundaries? | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | | | | | | | | | | | | | | **Yes** | | | | | **No** | | | | | | | **DK** | | | | |
| * 1. **To your knowledge, are there any species on the property that are at risk, endangered, vulnerable or likely to be designated as such (e.g. copper redhorse [fish species], five leaf ginseng, loggerhead shrikes, musk turtles)?** | | | | | | | | | | | | | | |  | | | | |  | | | | | | |  | | | | |
|  | | | | | | | | | | |  | | **Reduc-tion** | | **Increase** | | | | | | **Stable** | | | | | | **DK** | | | | |
| * 1. **In recent years, have you noticed any biodiversity changes on the property with respect to the following?** | | | | | | | | | | | | |  | | | | |  | | | | | | | |  | | | | | |
|  | | a) | | | Rural birds or birds of prey | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | b) | | | Bats | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | c) | | | Insects and pollinators | | | | | | | |  | |  | | | | | |  | | | | | |  | | | | |
|  | | | | | | | | | | | | | | | | **Yes** | | | | | | **No** | | | | | | **N/A** | | | |
| * 1. **Do you know the location of apiaries near cultivated fields?** | | | | | | | | | | | | | | | |  | | | | | |  | | | | | |  | | | |
|  | | | | | | | | | | | | | | | | **Yes** | | | | | | **No** | | | | | | **DK** | | | |
| * 1. **To your knowledge, are there any invasive alien species on the property?** | | | | | | | | | | | | | | | |  | | | | | |  | | | | | |  | | | |
|  | | a) | | | Wildlife (e.g. brown marmorated stink bugs, soybean cyst nematodes) | | | | | | | | | | |  | | | | | |  | | | | | |  | | | |
|  | | b) | | | Plants (e.g. giant hogweed, Japanese knotweed, rough-fruit amaranth) | | | | | | | | | | |  | | | | | |  | | | | | |  | | | |
| * 1. **Are harvests affected by nuisance wildlife (geese, turkeys, deer)?** | | | | | | | | | | | | | | | |  | | | | | |  | | | | | |  | | | |

**Comments**

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1. Don’t know [↑](#footnote-ref-1)
2. The adviser may use data from the most recently completed growing season or the current year if the ASP is conducted during the growing season. [↑](#footnote-ref-2)
3. According to an evaluation based on the advisor’s judgment. See explanations in the *PAA expliqué* document, if necessary*.* [↑](#footnote-ref-3)
4. Relatively flat part of the shoreline at the top of a watercourse’s sloped embankment. [↑](#footnote-ref-4)
5. This section covers all types of livestock, both inside and outside buildings (e.g. exercise yards, pastures). [↑](#footnote-ref-5)
6. This section concerns the irrigation of crops located in fields, crops that are sheltered or both. [↑](#footnote-ref-6)
7. Includes biennial crops such as strawberries. [↑](#footnote-ref-7)