### Supplementary Material. Survey questions and answer options.

<table>
<thead>
<tr>
<th>English</th>
<th>French</th>
<th>Answer</th>
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</table>
| In which country do you live?¹ | Dans quel pays vivez-vous ? | ○ The United States  
○ France  
○ Canada |
| In which state? | Dans quelle région vivez-vous ? | Dropdown list states/regions |
| Had you heard of perennial grain crops before this survey?² | Aviez-vous déjà entendu parler de céréales pérennes ? | ○ Yes  
○ No  
○ I do not know |
| Do you identify more as: | Identifiez-vous plus comme : | ○ Farmer  
○ Processor (miller, baker, brewer, distiller) |
| How do you describe your farm operation? | Comment définiriez-vous votre production ? | ○ Conventional production  
○ Transitioning to organic  
○ Mixed organic and conventional  
○ Organic (either certified or non-certified)  
○ Other, please define: |
| How many acres of cropland are you farming? | Quelle surface cultivez-vous ? | ○ Under 50 acres  
○ Between 50 and 250 acres  
○ Between 251 and 450 acres  
○ Between 451 and 650 acres  
○ Above 650 acres |
| What percent of your household income on average comes from selling agricultural products? | Quel pourcentage du revenu de votre foyer provient de la vente de produits agricoles ? | ○ Under 25%  
○ Between 25 and 50%  
○ Between 51 and 75%  
○ More than 75% |
| What do you produce? | Que produisez-vous ? | ☐ Corn  
☐ Wheat  
☐ Barley  
☐ Oats  
☐ Rye  
☐ Other cereal crops (spelt, emmer, einkorn, etc.)  
☐ Soybeans  
☐ Other grain crops (buckwheat, amaranth, quinoa, etc.)  
☐ Annual forage crop(s)  
☐ Perennial forage crop(s)  
☐ Tree crops  
☐ Livestock  
☐ Other, please define: |
<table>
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<tbody>
<tr>
<td>Do you process grains on your farm?</td>
<td>○ Yes  ○ No</td>
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<tr>
<td>What products do you make from processing grains?</td>
<td>○ Flour  ○ Malt  ○ Animal feed  ○ Other, please define:</td>
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<td>What top 2 soil issues are you most concerned about?</td>
<td>○ Soil-borne pests and diseases  ○ Low soil organic matter  ○ Soil compaction  ○ Low soil microbial activity  ○ Soil erosion  ○ Soil crusting  ○ Other, please define:  ○ I am not concerned about these soil problems on my farm</td>
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<tr>
<td>What soil conservation practices do you currently use?</td>
<td>○ No-tillage  ○ Conservation tillage  ○ Strip tillage  ○ Contour planting  ○ Terracing  ○ Crop rotation  ○ Cover cropping  ○ Buffer strips  ○ Windbreaks  ○ Other, please define:</td>
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<tr>
<td>Please rank the top 3 reasons why you might be interested in growing perennial grains.</td>
<td>To maintain or increase farm profitability  To reduce input use  To reduce labor requirements  To reduce soil erosion  To improve soil health  To improve water quality  To help mitigate climate change  To diversify crop production  To provide wildlife habitat  To grow on sloped or marginal land  To improve weed management  To graze or produce forage in addition to grain  Other, please define:</td>
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<tr>
<td>Given the potential challenges associated with perennial grain production, what would be your top 3 concerns?</td>
<td>High cost of seed  Increased pest problems (weeds, diseases, insects)  Decreased grain yield over time or limited crop life span  Low grain yield  Lack of market where you can sell your crop  Low profitability  Low seed availability</td>
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<td>Question</td>
<td>French Question</td>
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<td>How do you think a perennial grain could best fit into your farm operation?</td>
<td>Quel serait le meilleur moyen d'introduire des céréales pérennes dans votre exploitation ?</td>
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<td>What level of interest do you have in growing perennial grains?(^1)</td>
<td>Quel intérêt portez-vous aux céréales pérennes ?</td>
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<td>Please indicate whether you agree or disagree with the following statements.(^2)</td>
<td>Merci d'indiquer si vous êtes d'accord ou non avec les propositions suivantes.</td>
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<td>If you are interested in participating in the project, trialing perennial grains on your farm, or have any questions, you may enter your name and email address below. Any contact information will be utilized for this project only and will not be shared.</td>
<td>Si vous êtes intéressé(e) pour participer dans le projet, tester des céréales pérennes sur votre exploitation, ou si vous avez des questions, merci d'indiquer vos coordonnées ci-dessous (adresse email et/ou téléphone). Ces informations seront utilisées uniquement pour le projet et ne seront pas diffusées.</td>
</tr>
<tr>
<td>Is there anything else that you would like us to know (for example, suggestions for research, comments on the projects, etc.)? If yes, please fill in the text box below or click next to finish the survey.</td>
<td>Enfin, si vous avez des remarques, suggestions, et/ou idées à nous soumettre (par exemple, des suggestions pour la recherche, des commentaires sur le projet, etc.), merci de les indiquer ci-dessous, sinon cliquez sur suivant pour terminer le questionnaire.</td>
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</tbody>
</table>

Answer types:

- ☑️ Multiple choice, one answer
- ☐️ Multiple choice, multiple answers possible
- ☞️ Ranking

\(^1\) Respondents are directed to the English or French version of the survey depending on their answer.
\(^2\) If answer is No or I do not know, information is provided: To begin, here is some information about perennial grains. Most agricultural land is devoted to the production of grain crops such as corn, soybean, wheat, and rice. Combined they provide over 70% of human food calories. All these grain crops are currently annual plants, which means they need to be planted every year. Perennial grain crops are productive for two or more years after planting.
Some potential benefits of perennial grains include reduced soil erosion, greater utilization of solar radiation throughout the entire year, and greater access to nutrients and water that is deeper in the soil profile. Some potential disadvantages of perennial grains include lower grain yields compared to annual grain crops, reduced ability to use crop rotation to manage pests, and greater utilization of water. For more detailed information about perennial grain crops around the world, please see the Food and Agriculture Organization of the United Nations report titled Perennial Crops for Food Security at http://www.fao.org/3/a-i3495e.pdf.

3 If answer is No, following question is skipped.

4 If answer is Definitely not interested or Not interested, respondent is directed directly to the two last questions of the survey.

5 Statements were 1. I am interested in dual-purpose perennial crops that can be harvested for both grain and forage, 2. I would grow perennial grains to provide environmental benefits even if they were not as profitable as other crops, 3. Research funding should be spent on annual grain crops rather than developing new perennial grain crops.