

Supplementary Material. Survey questions and answer options.

Question		Answer
English	French	
In which country do you live? ¹	Dans quel pays vivez-vous ?	<input type="radio"/> The United States <input type="radio"/> France <input type="radio"/> 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 ?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> I do not know
Do you identify more as:	Identifiez-vous plus comme :	<input type="radio"/> Farmer <input type="radio"/> Processor (miller, baker, brewer, distiller)
How do you describe your farm operation?	Comment définiriez-vous votre production ?	<input type="radio"/> Conventional production <input type="radio"/> Transitioning to organic <input type="radio"/> Mixed organic and conventional <input type="radio"/> Organic (either certified or non-certified) <input type="radio"/> Other, please define:
How many acres of cropland are you farming?	Quelle surface cultivez-vous ?	<input type="radio"/> Under 50 acres <input type="radio"/> Between 50 and 250 acres <input type="radio"/> Between 251 and 450 acres <input type="radio"/> Between 451 and 650 acres <input type="radio"/> 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 ?	<input type="radio"/> Under 25% <input type="radio"/> Between 25 and 50% <input type="radio"/> Between 51 and 75% <input type="radio"/> More than 75%
What do you produce?	Que produisez-vous ?	<input type="checkbox"/> Corn <input type="checkbox"/> Wheat <input type="checkbox"/> Barley <input type="checkbox"/> Oats <input type="checkbox"/> Rye <input type="checkbox"/> Other cereal crops (spelt, emmer, einkorn, etc.) <input type="checkbox"/> Soybeans <input type="checkbox"/> Other grain crops (buckwheat, amaranth, quinoa, etc.) <input type="checkbox"/> Annual forage crop(s) <input type="checkbox"/> Perennial forage crop(s) <input type="checkbox"/> Tree crops <input type="checkbox"/> Livestock <input type="checkbox"/> Other, please define:

Do you process grains on your farm? ³	Transformez-vous des grains sur votre exploitation ?	<input type="radio"/> Yes <input type="radio"/> No
What products do you make from processing grains?	Quels produits produisez-vous à partir de grains ?	<input type="checkbox"/> Flour <input type="checkbox"/> Malt <input type="checkbox"/> Animal feed <input type="checkbox"/> Other, please define:
What top 2 soil issues are you most concerned about?	Quels sont les 2 principaux problèmes de sol dans votre exploitation ?	<input type="checkbox"/> Soil-borne pests and diseases <input type="checkbox"/> Low soil organic matter <input type="checkbox"/> Soil compaction <input type="checkbox"/> Low soil microbial activity <input type="checkbox"/> Soil erosion <input type="checkbox"/> Soil crusting <input type="checkbox"/> Other, please define: <input type="checkbox"/> I am not concerned about these soil problems on my farm
What soil conservation practices do you currently use?	Avez-vous des pratiques de conservation du sol ?	<input type="checkbox"/> No-tillage <input type="checkbox"/> Conservation tillage <input type="checkbox"/> Strip tillage <input type="checkbox"/> Contour planting <input type="checkbox"/> Terracing <input type="checkbox"/> Crop rotation <input type="checkbox"/> Cover cropping <input type="checkbox"/> Buffer strips <input type="checkbox"/> Windbreaks <input type="checkbox"/> Other, please define: <input type="checkbox"/> I do not currently use soil conservation practices
Please rank the top 3 reasons why you might be interested in growing perennial grains.	Merci de classer les 3 principales raisons pour lesquelles vous seriez intéressé(e) par la production de céréales pérennes.	<input type="checkbox"/> To maintain or increase farm profitability <input type="checkbox"/> To reduce input use <input type="checkbox"/> To reduce labor requirements <input type="checkbox"/> To reduce soil erosion <input type="checkbox"/> To improve soil health <input type="checkbox"/> To improve water quality <input type="checkbox"/> To help mitigate climate change <input type="checkbox"/> To diversify crop production <input type="checkbox"/> To provide wildlife habitat <input type="checkbox"/> To grow on sloped or marginal land <input type="checkbox"/> To improve weed management <input type="checkbox"/> To graze or produce forage in addition to grain <input type="checkbox"/> Other, please define:
Given the potential challenges associated with perennial grain production, what would be your top 3 concerns?	Compte tenu des défis potentiels liés à la production de céréales pérennes, quelles seraient vos 3 principales inquiétudes ?	<input type="checkbox"/> High cost of seed <input type="checkbox"/> Increased pest problems (weeds, diseases, insects) <input type="checkbox"/> Decreased grain yield over time or limited crop life span <input type="checkbox"/> Low grain yield <input type="checkbox"/> Lack of market where you can sell your crop <input type="checkbox"/> Low profitability <input type="checkbox"/> Low seed availability

		<input type="checkbox"/> Difficulty harvesting <input type="checkbox"/> Specialized equipment requirements <input type="checkbox"/> Low grain quality <input type="checkbox"/> Other, please define:
How do you think a perennial grain could best fit into your farm operation?	Quel serait le meilleur moyen d'introduire des céréales pérennes dans votre exploitation ?	<input type="radio"/> As a long-term perennial crop on your most productive land <input type="radio"/> As a long-term perennial crop on sloped or less productive land <input type="radio"/> As a short-term perennial crop in standard fields that is grown as part of a multi-year rotation <input type="radio"/> As a perimeter crop that serves as a buffer <input type="radio"/> Other, please define <input type="radio"/> I do not know
What level of interest do you have in growing perennial grains? ⁴	Quel intérêt portez-vous aux céréales pérennes ?	<input type="radio"/> Very interested <input type="radio"/> Interested <input type="radio"/> Not interested <input type="radio"/> Definitely not interested <input type="radio"/> Need more information before making this decision
Please indicate whether you agree or disagree with the following statements. ⁵	Merci d'indiquer si vous êtes d'accord ou non avec les propositions suivantes.	<input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree
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.	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.	Free answer
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.	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.	Free answer

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.

