

Thank you for responding to this survey, which has 20 questions that we expect will take 10 minutes to complete. You may skip any question, and if you do answer will be asked for an assessment of your confidence in that ranking on a 1-10 scale (where 1 is least certain, and 10 is the highest possible certainty). You will also be given a free-text field after each group of questions where you can enter any comments, explanations or other considerations. If you are interrupted, you may return to this link with the same browser to complete your responses.

The survey will remain open for 14 days from the time you received the invitation email. The mean response for each item will then be posted on www.apollosurveys.org, along with the individual responses of each participant. If you choose to not have your name shown, your responses will be listed as "Anonymous" on www.apollosurveys.org.

* 1. Would you like your responses to be anonymous?

Anonymous Show my name

2. Participant Info (we will only display this if you choose not to be anonymous)

Full Name

Institution (typically a university name)

3. Would you like to be invited to a recurring panel of experts for future questions? (Only non-anonymous respondents are eligible)

Yes No

The following questions ask for your scientific opinion regarding the relative importance and strength of the evidence regarding major aspects of the U.S. food system, by ranking the options from 1 to 5 (where 1 is most important). You may skip any question, and if you do answer will be asked for an assessment of your confidence in that ranking on a 1-10 scale (where 10 is the highest possible certainty), and also be given a free-text field where you can enter any comments, explanations or other considerations.

4. What do you believe are the greatest threats to the continued ability of U.S. farmers to produce food for Americans and the world, over the next 20-30 years?

Climate change (e.g. heat waves, drought and floods, storm intensity)

Resource depletion (e.g. soil degradation, loss of access to irrigation water)

Biodiversity loss (e.g. too few crop varieties, loss of pollinators or other ecosystem function)

Economic viability (e.g. labor scarcity, high input costs, low output prices)

Government regulation (e.g. on land use, crop inputs, & livestock practices)

5. How confident are you in your ranking, on a scale of 1 (the least confident) to 10 (the most confident)?

6. Any comments? These will be shown with your responses. (Limit to 50 words.)

7. What do you believe are the greatest threats to the overall wellbeing of Americans caused by how the U.S. food supply is produced, over the next 20-30 years?

- Harms from **greenhouse gas emissions** (especially CO2 and methane), loss of carbon sinks
- Harms from **crop chemicals** (especially fertilizer runoff, pesticides and herbicides poisoning or residues)
- Harms from **bacteria and antibiotic resistance** (including bacteria affecting food safety)
- Harms from **food manufacturing** (including added salt & sugar or chemicals in packaging)
- Harms from **animal welfare** (considering Americans' interest in both people and animals)

8. How confident are you in your ranking, on a scale of 1 (the least confident) to 10 (the most confident)?

9. Any comments? These will be shown with your responses. (Limit to 50 words.)

The following questions ask for your scientific opinion regarding whether the following changes would improve or worsen various aspects of agriculture and food production in the United States. If you do not have an opinion you may skip the question.

On balance, for the **sustainability of agricultural production** over the coming 20-30 years, what do you expect would be the effect of:

10. A larger fraction of farmland managed with older methods, instead of the latest techniques.

- Greatly worsen Slightly worsen Not alter Slightly improve Much improve

11. A larger fraction of farms being more diversified, defined here as producing more than 3 different crop and livestock species.

- Greatly worsen Slightly worsen Not alter Slightly improve Much improve

12. A larger fraction of food was produced closer to consumers, for example within the same region or state of the U.S.

- Greatly worsen Slightly worsen Not alter Slightly improve Much improve

13. A larger fraction of food was produced in ways that would meet the requirements of USDA organic certification.

- Greatly worsen Slightly worsen Not alter Slightly improve Much improve

14. How confident are you in the previous **set** of answers, on a scale of 1-10?

15. Any comments? These will be shown with your responses. (Limit to 50 words.)

The following questions comprise a different set.

On balance, **for the wellbeing of Americans**, taking account of how changes would affect all of our concerns, what do you expect would be the effect of:

16. Using more restrictive standards than we now have to limit subtherapeutic antibiotic use.

- Greatly worsen Slightly worsen Not alter Slightly improve Much improve

17. Using more restrictive standards than we now have to limit use of genetically modified organisms

- Greatly worsen Slightly worsen Not alter Slightly improve Much improve

18. Using more restrictive standards than we now have to limit use of crop chemicals, including fertilizers, pesticides and herbicides.

- Greatly worsen Slightly worsen Not alter Slightly improve Much improve

19. How confident are you in the previous **set** of answers, on a scale of 1-10?

20. Any comments? These will be shown with your responses. (Limit to 50 words.)