

2023 Carbon Footprint Assessment Questions

Below are the questions for the 2023 Carbon Footprint Assessment. Please use this form to prepare your answers for the online application. If you have multiple orchards, please use the average for all.

1. Input physical address nearest to orchard used for this assessment
2. Input average yield/acre (meat pounds)
3. Please select soil type
 - a. Clay (fine)
 - b. Silty (medium)
 - c. Sandy (coarse)
4. Please select your soil drainage
 - a. Good
 - b. Poor
5. Please select your pH range
 - a. >8.5
 - b. <=5.5, 5.5<
 - c. <=7.3, 7.3<
 - d. <=8.5
6. Did you apply fertilizer in the 2023 season? If yes, please select fertilizers, application rate (lbs/acre)
 - a. Calcium ammonium nitrate -27% N
 - b. Compost (fully aerated production) - 1% N
 - c. Compost (other non-zero emissions) - 1% N
 - d. Compost (zero emissions) - 1% N
 - e. Compound NPK 15%N 15% K₂O 15% P₂O₅
 - f. Lime - 52% CaO
 - g. Muriate of potash/ Potassium Chloride - 60% K₂O
 - h. N Ammonium sulphate - 21% N
 - i. Potassium sulphate - 50% K₂O; 45% SO₃
 - j. Urea - 46.4% N
7. How was each fertilizer applied?
 - a. Banded
 - b. Broadcast
 - c. Drip
 - d. Folia
8. Where was each fertilizer manufactured?
 - a. Russia
 - b. Europe
 - c. China
 - d. USA
 - e. North Africa
 - f. Other/I do not know

9. Please select months you applied Nitrogen fertilizer
 - a. Jan
 - b. Feb
 - c. Mar
 - d. Apr
 - e. May
 - f. Jun
 - g. Jul
 - h. Aug
 - i. Sep
 - j. Oct
 - k. Nov
 - l. Dec
10. Did you use any emissions inhibitors? (if you do not know, select NO)
 - a. Yes, Nitrification Inhibitor
 - b. No
11. If you did use Nitrification Inhibitor, which fertilizers did you use it with?
 - a. Calcium ammonium nitrate -27% N
 - b. Compost (fully aerated production) - 1% N
 - c. Compost (other non-zero emissions) - 1% N
 - d. Compost (zero emissions) - 1% N
 - e. Compound NPK 15%N 15% K₂O 15% P₂O₅
 - f. Lime - 52% CaO
 - g. Muriate of potash/ Potassium Chloride - 60% K₂O
 - h. N Ammonium sulphate - 21% N
 - i. Potassium sulphate - 50% K₂O; 45% SO₃
 - j. Urea - 46.4% N
12. Did you use any crop protection agents throughout the season (e.g. pesticide, herbicide, etc.)? If yes, please indicate application method
 - a. Broadcast
 - b. Fertigation (drip)
 - c. Foliar
13. Please select the crop protection categories you used in the 2023 season
 - a. Fungicide
 - b. Herbicide
 - c. Insecticide
 - d. Pesticide
 - e. None
14. For each crop protection category selected, please indicate the application rate (lbs/acre) and the active ingredient %
15. For activities in the orchard please indicate the in-field energy sources used
 - a. Diesel (100% mineral)
 - b. Diesel (average biofuel)

16. Please estimate fuel used (# of gallons)
17. Please indicate your irrigation method
 - a. Drip
 - b. Flood
 - c. Micro-Sprinkler
 - d. Solid-set Sprinkler
18. Please indicate your water source (select all that apply)
 - a. Borehole/well (groundwater)
 - b. Main Supply
 - c. Natural Lake
 - d. On farm storage pond/reservoir/tank
 - e. Pond
 - f. Reservoir
 - g. River/stream/ditch
19. If pumping water, please indicate volume (acre-feet) pumped
20. Please estimate the distance (in feet) between your pump/water source and orchard
21. Please indicate your irrigation electricity source
 - a. Diesel (100% mineral blend)
 - b. Diesel (average biofuel blend)
 - c. Electric (including solar)
 - d. Gravity
22. Total applied water for the season
23. Have you replanted any of the assessed almond orchards in the last 20 years?
 - a. Yes
 - b. No
24. If yes, what % of your assessed acreage has been replanted in the past 20 years? Answer as a percentage (e.g. 100=100%)
25. If replant years vary, please input the year that you did the most replanting. If equal, input oldest replant year in the past 20 years.
26. Was there a different crop or non-agricultural land here in the past 20 years?
 - a. Yes
 - b. No
27. If yes, what was planted here prior to almonds in the past 20 years?
 - a. Non-agricultural Land
 - b. I do not know
 - c. Other Perennials (including grasses)
 - d. Vegetable Crops
 - e. Vines
 - f. Other Tree Crops
28. If yes, what percent of your assessed land was in the above crop/land type prior to being almonds?
29. Have you planted cover crops in the past 20 years?
30. If yes, what % of your orchard area had cover crops?

31. If yes, what years did you plant cover crops? Select all that apply
- a. 2001
 - b. 2002
 - c. 2003
 - d. 2004
 - e. 2005
 - f. 2006
 - g. 2007
 - h. 2008
 - i. 2009
 - j. 2010
 - k. 2011
 - l. 2012
 - m. 2013
 - n. 2014
 - o. 2015
 - p. 2016
 - q. 2017
 - r. 2018
 - s. 2019
 - t. 2020
 - u. 2021
 - v. 2022
32. On average, what is your planting density (trees/acre)?
33. How many trees per acre have been replanted in the last year?
34. In what year was this orchard planted? If assessing multiple orchards, please provide average age of all orchards.
35. In what form was the tree stock you used to originally plant this field? If assessing multiple orchards or you have multiple forms, please select "Multiple/Mixed".
- a. Potted
 - b. Bare root
 - c. Plastic liner
 - d. Multiple/Mixed
 - e. Other
36. Average tree circumference in inches on this field. Measure one tree that represents the average. Please provide circumference in inches
37. How many trees per acre have you needed to replant since you first established this orchard? If you do not know, please provide best estimate.