

Farmer Survey: Untreated/Raw Manure Use on Produce Farms

About this survey: Virginia Association for Biological Farming (VABF) and the National Sustainable Agriculture Coalition (NSAC) are looking for information to better understand how farmers are using untreated or raw manure on their farms. We're asking for this now because the Food and Drug Administration (FDA) is currently gathering information regarding on-farm use of manure, as well as existing scientific research on manure use and food safety, with the goal of developing reasonable, science based guidelines for time intervals between a manure application and subsequent produce harvest.

The fact that FDA is even asking for this information is the result of a huge victory that NSAC, VABF, and the broader sustainable agriculture community achieved during the Food Safety Modernization Act (FSMA) proposed Produce Rule comment period. FDA had proposed rules that would have severely restricted the use of manure as a source of nutrients and organic matter, by requiring a nine-month waiting period between applications of manure that has not undergone documented high-temperature composting and the next produce harvest. Comments from VABF and farmers like you demonstrated to FDA that their proposed rule did not adequately account for regional variations in climate and growing seasons, or the diversity of manure management and production practices that farmers use across the country. As a result, FDA agreed to go back to the drawing board. This request for information by FDA is the first step in that process.

FDA has committed to doing a full risk assessment that will look at pathogen survival while considering different agricultural and ecological conditions (*e.g.*, soil types, application methods, geographic locations, climatic factors) and considering different time intervals between when manure is applied and the crop harvested. The risk assessment will eventually inform FDA's next proposed standard setting a required minimum application interval for raw or untreated manure. To make sure this risk assessment, and the final standard, fully accounts for the diversity of ways in which farmers use biological soil amendments, particularly raw or untreated animal manure, we are asking for your participation in the survey below.

The information you submit will remain anonymous unless you choose to identify yourself. The responses will be aggregated and used by VABF and NSAC in our comments and ongoing dialogue with FDA to ensure FDA's new food safety standards work for sustainable agriculture.

You can find out more information on FDA's risk assessment process on [NSAC's website](#).

Please complete this survey by MAY 20 so we can aggregate the responses and integrate them into the comments NSAC will provide to FDA. We recognize this is a busy time of a year for you, and we apologize for asking for responses in such a short time window. The questions below shouldn't take more than 20 minutes! Your input is so valuable to this process. Thank you!

You can find out more information on FDA's risk assessment process on [NSAC's website](http://sustainableagriculture.net/blog/manure-risk-assessment/).

URL: <http://sustainableagriculture.net/blog/manure-risk-assessment/>

Please Read the Following Before Beginning the Survey:

Who should take this survey? The following survey is primarily intended for produce farmers who apply untreated or raw manure or other biological soil amendments of animal origin to fields where produce is grown. Examples of manure include: cattle manure, poultry litter, swine slurry, and horse manure, or products such as compost or compost tea using such products.

This survey does NOT apply to you if you: (a) do not grow produce (b) do not use manure or manure-based compost at all on your farm; or (c) use ONLY purchased manure that is labeled or marketed as treated or composted, or manure that is composted in-house with records verifying that it reached required temperatures for sufficient durations to be legally considered composted.

This survey DOES apply to you if you: (a) grow produce in conjunction with other crops (b) use aged or field stacked manure; (c) purchased manure that is not labeled as treated or composted; or (d) manure that is composted on your own farm without records. You will have an opportunity to describe the composting process or aging time below.

What if I have multiple farms? If you have farms spread across multiple geographic areas, please respond in the context of just one particular farm where you commonly use untreated manure amendments.

Will FDA receive my contact information or other identifying information? No. We will keep all responses anonymous, and will share only aggregate information.

How much time will the survey take? The survey has 5 sections and should take approximately 20 minutes to complete. For questions where you select "other," please provide details. In the final question, you will be able to provide any comments you may have. Please answer any or all questions as you choose; all information you provide will be helpful to us.

Survey Questions
(Please check ALL selections that apply; fill in blanks)

Section A: Farm Background

1. State/Region or Zipcode: _____
2. Acreage: ☐ Less than 50 acres ☐ 50- 500 acres ☐ More than 500 acres
3. Gross Annual Sales: ☐ Less than \$25K ☐ \$25 - 250K ☐ \$250 - 500K ☐ Over \$500K
4. Please select all that apply:
 - ☐ My farm is Certified USDA Organic
 - ☐ My farm is transitioning to Certified USDA Organic
 - ☐ My farm is Certified Naturally Grown
 - ☐ My farm is USDA Good Agricultural Practices (GAP) Certified
 - ☐ My farm has another food safety certification: _____
5. Do any of your buyers prohibit you from using manure or animal-based products?
 - ☐ Yes ☐ No

Section B: Soil Characteristics & Management Practices

Please select all of the characteristics that best describe the soil conditions on your farm

6. Soil Type: ☐ sand ☐ sandy loam ☐ loam ☐ silt loam ☐ clay ☐ clay loam
7. Drainage: ☐ well-drained ☐ poorly drained ☐ tiled, artificial drainage
8. Tilth: ☐ good tilth ☐ well-aerated ☐ compacted/hardpan ☐ other _____
9. What is your soil organic matter content (% range)?
 - ☐ Less than 2% ☐ 3- 5% ☐ 6- 10% ☐ Greater than 10% ☐ don't know/unsure
10. In the context of your region, climate and soil type, is your soil organic matter level considered:
 - ☐ High ☐ Medium ☐ Low ☐ Other _____

Please provide any additional comments on soil quality (e.g. NPK content; salinity; moisture retention; microbial diversity):

11. On average, what percentage of your crop nutrient needs are met through the use of untreated manure and manure products?
 - ☐ 0% ☐ 1-10% ☐ 15-25% ☐ 30% ☐ 50% ☐ 75% ☐ 100%

Please clarify any differences (in crop type or soil type) with regards to using raw manure to meet crop nutrient needs:

21. Frequency of applications of that size: _____ times per _____
22. When do you apply manure/ manure products? *(Select at least one option from each row)*
- ☐ year-round ☐ in summer ☐ in winter ☐ in spring ☐ in fall
- ☐ every year ☐ certain years, depending on _____
23. When do you apply manure/ manure products?
- ☐ Before or when planting a cover crop
- ☐ When terminating a cover crop
- ☐ When planting a production crop
- ☐ Other _____
24. Where do you apply manure/ manure products?
- ☐ On all my fields
- ☐ Only on certain fields, based on crop type (e.g. perennial sod, forage crops)
- ☐ Only on certain fields, based on soil composition
25. Please describe any variability in the amount of manure applied to each crop or soil type:
- _____
- _____
- _____
- _____
26. When do you NOT apply manure/manure products?
- ☐ Pre-rainfall/irrigation ☐ Post-rainfall/irrigation ☐ On frozen or snow-covered ground
- ☐ Other: _____
27. What method do you use to apply manure/ manure products?
- ☐ Sprayed onto surface ☐ Spread onto surface ☐ Injected into subsurface
28. After applying, is the manure:
- ☐ Incorporated immediately into the soil after application
- ☐ Left on the surface to dry out before incorporation
- ☐ Left unincorporated
29. Is the soil covered after manure application?
- ☐ No ☐ Yes; using plasticulture ☐ Yes; using _____
30. What is the shortest time between manure application and subsequent crop's* harvest date?
- _____ days or months
31. What is the average time between manure application and subsequent crop's* harvest date?
- _____ days or months

**Please describe any variations between manure application and harvest times of different crops, i.e. food crops often eaten raw by the consumer, food crops rarely eaten raw, or livestock feed or forage crops*

32. Are there certain climatic events under which you would NOT conduct a harvest?

☐ Extreme heat ☐ Heavy rain events ☐ After irrigation ☐ Other: _____

Section E: Pathogens and Testing

33. Have you ever tested your manure, compost, soil, or crops (indicate whether in-field or harvested crops) for *E.coli* pathogens, *Salmonella*, or other pathogens? ☐ Yes ☐ No

Please describe any testing, and what was learned in the process:

34. Is your produce treated with anything to suppress/inactivate pathogens during:

- | | | |
|---------------------|------------------------------|-----------------------------|
| a) Handling/harvest | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) Packaging | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) Transportation | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d) Storage | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

35. Please list any antibacterial products used, and at which stage they are used:

36. What additional information about your use of raw manure on the farm would you like to share?

THANK YOU FOR YOUR PARTICIPATION!

Please send completed survey by May 20 to:

National Sustainable Agriculture Coalition
110 Maryland Ave., NE, Ste. 209
Washington, DC 20002