


## 2020 Water Use Survey (997)

### Additional Information

1. AgWrap - <http://www.ncagr.gov/SWC/costshareprograms/AgWRAP/>
2. Surface water comes from ponds/lakes or rivers/streams
3. Ground water comes from wells
4. An operation probably used more than 10,000 gallons if they had any one of the following or a combination of them.
  - a. 3700 or more finish hogs
  - b. 9000 or more nursery hogs
  - c. **More** than 4 poultry houses
  - d. Irrigated at least 1 acre with a ½ inch of water
  - e. OPS WITH MULTIPLE TYPES ABOVE BUT smaller quantities
5. Water Withdrawal Capacity – Max amount pumps could output in 24 hours
6. Information on water to include in tables 1 and/or 2

### Tables should include

- ▶ Ground or Surface water only
- ▶ Water used for
  - feeding livestock or irrigating crops
  - Cooling hog/poultry houses
  - Clean barns
  - Prevent freeze damage
  - Apply chemicals
  - Process crops on the farm

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7. Broilers
    - a. Consecutive weeks full -expect 5 to 9
    - b. Consecutive empty weeks - Expect 2 to 6
  8. Layers
    - a. Avg consecutive weeks full (21 to 52)
    - b. Avg consecutive weeks empty (0 to 4)

9. Turkeys

- a. Avg consecutive weeks full (9 to 22)
- b. Avg consecutive weeks empty (2 to 7)

10. Op who irrigates **AND** doesn't know how much water his livestock uses.

- a. Select option 3 that you want to report using both gallons AND inches
- b. Enter dk's in table 1 for gallons, and complete columns for water source and # of days
- c. Add an F9 note with all appropriate livestock info from estimation guide
- d. Complete table 2

11. Odd NC county name pronunciations ☺

- a. Beaufort = Bow (as in a bow on a wreath) +fert (as in fertilizer)
- b. Cabarrus = ka bare us –emphasize the underlined syllable.
- c. Catawba
- d. Chowan
- e. Harnett = HAR (as in hard) net-heavy emphasis on Har and very little on net
- f. Pasquotank= Pass kwo tank
- g. Perquimans = Pur ki mens
- h. Robeson =Row ba son
- i. Tyrell = Tur rail
- j. Watauga= Wa taw ga

12. Days in Month (2020 leap year)

- |               |              |             |
|---------------|--------------|-------------|
| a. Jan = 31   | e. July = 31 | i. Sep = 30 |
| b. Feb = 29   | f. June = 30 | j. Oct = 31 |
| c. Mar = 31   | g. July = 31 | k. Nov = 30 |
| d. April = 30 | h. Aug = 31  | l. Dec = 31 |

13. Fraction help

- a.  $\frac{1}{4}$  key as .25
- b.  $\frac{1}{3}$  key as .33
- c.  $\frac{1}{2}$  key as .5
- d.  $\frac{2}{3}$  key as .67

14. Prior year survey results are available at
  - a. <https://ncagr.gov/stats/environmental/index.htm>
  - b. Under the category “Water Use Studies”
  - c. Click on the link for the year of data that you want to see.

### **Practice 1 (Gallons)**

1. Who is responding? **Operator**
2. Let me verify the name, address and phone number that I have for this operation. Is this information correct? **Yes**
3. During 2020, did you grow crops, cut hay, grown nursery or floriculture crops or have any whole grains, oilseeds, or hay stored on this operation, or own or raise any livestock or poultry or aquaculture? **Yes**
4. Did you use water (SURFACE or GROUND) for agricultural commodities such as crops, horticulture, aquaculture and livestock in 2020? **Yes**
5. Did you use 10,000 gallons or more of water on any one day for agriculture? **Yes**
6. The next set of questions will ask about the percentage of water used during 2020 for specific categories. What percentage of water did you utilize annually during 2020 for Poultry? **0**
7. What percentage of water did you utilize annually during 2020 for Poultry? **0**
8. What percentage of water did you utilize annually during 2020 for Hogs? **0**
9. What percentage of water did you utilize annually during 2020 for Catfish, Trout, or Other Aquaculture? **0**
10. What percentage of water did you utilize annually during 2020 for Field Crops? **0**
11. What percentage of water did you utilize annually during 2020 for Fruit and Vegetable Crops? **0**
12. What percentage of water did you utilize annually during 2020 for Nursery, Greenhouse, and Sod? **100**
13. What percentage of water did you utilize annually during 2020 for Other Uses? **0**
14. What is the daily water withdrawal capacity in gallons from Ground Water Sources for your farm? **403,000**
15. What is the daily water withdrawal capacity in gallons from Surface Water Sources for your farm? **0**
16. Next, we will be recording your monthly water usage. When reporting water used, please include surface and/or ground water used to feed livestock, cool livestock houses, clean barns, irrigate crops, prevent freeze damage, apply chemicals, or process crops on the farm. In which unit would you like to report your usage? **Gallons**
17. In which county did you primarily use water to be reported in gallons? **Yadkin**
18. How many total gallons of water were withdrawn for the whole month of January 2020? **1,680,000**

19. What was the maximum number of gallons of water withdrawn in any one day for January 2020? **168,000**
20. What percent of the 1680000 gallons of water was pumped from ground water sources for January 2020? **100**
21. How many days during January 2020 was ground water used? **10**
22. How many total gallons of water were withdrawn for the whole month of February 2020? **1,680,000**
23. What was the maximum number of gallons of water withdrawn in any one day for February 2020? **168,000**
24. What percent of the 1680000 gallons of water was pumped from ground water sources for February 2020? **100**
25. How many days during February 2020 was ground water used? **10**
26. How many total gallons of water were withdrawn for the whole month of March 2020? **5040000**
27. What was the maximum number of gallons of water withdrawn in any one day for March 2020? **168,000**
28. What percent of the 5040000 gallons of water was pumped from ground water sources for March 2020? **100**
29. How many days during March 2020 was ground water used? **30**
30. How many total gallons of water were withdrawn for the whole month of April 2020? **5040000**
31. What was the maximum number of gallons of water withdrawn in any one day for April 2020? **168,000**
32. What percent of the 5040000 gallons of water was pumped from ground water sources for April 2020? **100**
33. How many days during April 2020 was ground water used? **30**
34. How many total gallons of water were withdrawn for the whole month of May 2020? **10,080,000**
35. What was the maximum number of gallons of water withdrawn in any one day for May 2020? **336,000**
36. What percent of the 10080000 gallons of water was pumped from ground water sources for May 2020? **100**
37. How many days during May 2020 was ground water used? **30**
38. How many total gallons of water were withdrawn for the whole month of June 2020? **10,080,000**
39. What was the maximum number of gallons of water withdrawn in any one day for June 2020? **336,000**
40. What percent of the 10080000 gallons of water was pumped from ground water sources for June 2020? **100**
41. How many days during June 2020 was ground water used? **30**
42. How many total gallons of water were withdrawn for the whole month of July 2020? **10,080,000**
43. What was the maximum number of gallons of water withdrawn in any one day for July 2020? **336,000**

44. What percent of the 10080000 gallons of water was pumped from ground water sources for July 2020? **100**
45. How many days during July 2020 was ground water used? **30**
46. How many total gallons of water were withdrawn for the whole month of August 2020? **10,080,000**
47. What was the maximum number of gallons of water withdrawn in any one day for August 2020? **336,000**
48. What percent of the 10080000 gallons of water was pumped from ground water sources for August 2020? **100**
49. How many days during August 2020 was ground water used? **30**
50. How many total gallons of water were withdrawn for the whole month of September 2020? **5040000**
51. What was the maximum number of gallons of water withdrawn in any one day for September 2020? **168,000**
52. What percent of the 5040000 gallons of water was pumped from ground water sources for September 2020? **100**
53. How many days during September 2020 was ground water used? **30**
54. How many total gallons of water were withdrawn for the whole month of October 2020? **5040000**
55. What was the maximum number of gallons of water withdrawn in any one day for October 2020? **168,000**
56. What percent of the 5040000 gallons of water was pumped from ground water sources for October 2020? **100**
57. How many days during October 2020 was ground water used? **30**
58. How many total gallons of water were withdrawn for the whole month of November 2020? **1,680,000**
59. What was the maximum number of gallons of water withdrawn in any one day for November 2020? **168,000**
60. What percent of the 1680000 gallons of water was pumped from ground water sources for November 2020? **100**
61. How many days during November 2020 was ground water used? **10**
62. How many total gallons of water were withdrawn for the whole month of December 2020? **1,680,000**
63. What was the maximum number of gallons of water withdrawn in any one day for December 2020? **168,000**
64. What percent of the 1680000 gallons of water was pumped from ground water sources for December 2020? **100**
65. How many days during December 2020 was ground water used? **10**
66. Did your farm withdraw water from another county? **No**
67. Did you make any day-to=day decision for another farm or ranch? **No**
68. Summary data from this survey will be available after July 1 on the internet. This completes the survey! Thank you again. **Enter any notes or comments before entering a 3 below..... 3**

## Practice 2: Acres Irrigated and Water Applied

1. Who is responding? **Operator**
2. Let me verify the name, address and phone number that I have for this operation. Is this information correct? **Yes**
3. During 2020, did you grow crops, cut hay, grown nursery or floriculture crops or have any whole grains, oilseeds, or hay stored on this operation, or own or raise any livestock or poultry or aquaculture? **Yes**
4. Did you use water (SURFACE or GROUND) for agricultural commodities such as crops, horticulture, aquaculture and livestock in 2020? **Yes**
5. Did you use 10,000 gallons or more of water on any one day for agriculture? **Yes**
6. The next set of questions will ask about the percentage of water used during 2020 for specific categories. What percentage of water did you utilize annually during 2020 for Poultry? **0**
7. What percentage of water did you utilize annually during 2020 for Poultry? **0**
8. What percentage of water did you utilize annually during 2020 for Hogs? **0**
9. What percentage of water did you utilize annually during 2020 for Catfish, Trout, or Other Aquaculture? **0**
10. What percentage of water did you utilize annually during 2020 for Field Crops? **0**
11. What percentage of water did you utilize annually during 2020 for Fruit and Vegetable Crops? **100**
12. What percentage of water did you utilize annually during 2020 for Nursery, Greenhouse, and Sod? **0**
13. What percentage of water did you utilize annually during 2020 for Other Uses? **0**
14. What is the daily water withdrawal capacity in gallons from Ground Water Sources for your farm? **165600**
15. What is the daily water withdrawal capacity in gallons from Surface Water Sources for your farm? **432000**
16. Of the surface water withdrawal capacity, what percentage was withdrawn annually from rivers and streams? **0**
17. Of the surface water withdrawal capacity, what percentage was withdrawn annually from lakes and ponds? **100**
18. Next, we will be recording your monthly water usage. When reporting water used, please include surface and/or ground water used to feed livestock, cool livestock houses, clean barns, irrigate crops, prevent freeze damage, apply chemicals, or process crops on the farm. In which unit would you like to report your usage? **Inches per acre**
19. In which county did you primarily use water to be reported in inches per acre? **Polk**
20. What was the average number of Acres irrigated per day in January 2020? **0**
21. What was the average number of Acres irrigated per day in February 2020? **0**
22. What was the average number of Acres irrigated per day in March 2020? **0**
23. What was the average number of Acres irrigated per day in April 2020? **3**
24. How many total inches were applied per acre for the whole month of April 2020? **4**
25. What was the maximum number of inches applied per acre in any one day for April 2020? **0.4**

26. What percent of the gallons of water was pumped from ground water sources for April 2020? **0**
27. What percent of the gallons of water was pumped from surface water sources for April 2020? **100**
28. How many days during April 2020 was surface water used? **10**
29. What was the average number of Acres irrigated per day in May 2020? **3**
30. How many total inches were applied per acre for the whole month of May 2020? **6**
31. What was the maximum number of inches applied per acre in any one day for May 2020? **0.4**
32. What percent of the gallons of water was pumped from ground water sources for May 2020? **0**
33. What percent of the gallons of water was pumped from surface water sources for May 2020? **100**
34. How many days during May 2020 was surface water used? **15**
35. What was the average number of Acres irrigated per day in June 2020? **3**
36. How many total inches were applied per acre for the whole month of June 2020? **6**
37. What was the maximum number of inches applied per acre in any one day for June 2020? **0.5**
38. What percent of the gallons of water was pumped from ground water sources for June 2020? **0**
39. What percent of the gallons of water was pumped from surface water sources for June 2020? **100**
40. How many days during June 2020 was surface water used? **12**
41. What was the average number of Acres irrigated per day in July 2020? **3**
42. How many total inches were applied per acre for the whole month of July 2020? **6**
43. What was the maximum number of inches applied per acre in any one day for July 2020? **0.5**
44. What percent of the gallons of water was pumped from ground water sources for July 2020? **0**
45. What percent of the gallons of water was pumped from surface water sources for July 2020? **100**
46. How many days during July 2020 was surface water used? **12**
47. What was the average number of Acres irrigated per day in August 2020? **0**
48. What was the average number of Acres irrigated per day in September 2020? **0**
49. What was the average number of Acres irrigated per day in October 2020? **0**
50. What was the average number of Acres irrigated per day in November 2020? **0**
51. What was the average number of Acres irrigated per day in December 2020? **0**
52. Did your farm withdraw water from another county? **No**
53. Did you make any day-to-day decision for another farm or ranch? **No**
54. Summary data from this survey will be available after July 1 on the internet. This completes the survey! Thank you again. **Enter any notes or comments before entering a 3 below..... 3**

### Practice 3: Estimation Guide

1. Who is responding? **Operator**
2. Let me verify the name, address and phone number that I have for this operation. Is this information correct? **Yes**
3. During 2020, did you grow crops, cut hay, grown nursery or floriculture crops or have any whole grains, oilseeds, or hay stored on this operation, or own or raise any livestock or poultry or aquaculture? **Yes**
4. Did you use water (SURFACE or GROUND) for agricultural commodities such as crops, horticulture, aquaculture and livestock in 2020? **Yes**
5. Did you use 10,000 gallons or more of water on any one day for agriculture? **Yes**
6. The next set of questions will ask about the percentage of water used during 2020 for specific categories. What percentage of water did you utilize annually during 2020 for Poultry? **0**
7. What percentage of water did you utilize annually during 2020 for Poultry? **40**
8. What percentage of water did you utilize annually during 2020 for Hogs? **60**
9. What percentage of water did you utilize annually during 2020 for Catfish, Trout, or Other Aquaculture? **0**
10. What percentage of water did you utilize annually during 2020 for Field Crops? **0**
11. What percentage of water did you utilize annually during 2020 for Fruit and Vegetable Crops? **0**
12. What percentage of water did you utilize annually during 2020 for Nursery, Greenhouse, and Sod? **0**
13. What percentage of water did you utilize annually during 2020 for Other Uses? **0**
14. What is the daily water withdrawal capacity in gallons from Ground Water Sources for your farm? **172800**
15. What is the daily water withdrawal capacity in gallons from Surface Water Sources for your farm? **0**
16. Next, we will be recording your monthly water usage. When reporting water used, please include surface and/or ground water used to feed livestock, cool livestock houses, clean barns, irrigate crops, prevent freeze damage, apply chemicals, or process crops on the farm. In which unit would you like to report your usage? **Head of livestock/poultry or row spacing/flow rate**
17. Since you indicated you wished to report water usage based on head of livestock/poultry or row spacing/flow rate, first we need to determine which commodities were involved. As I read down the list, please indicate which ones apply. **Hogs and layers**
18. We now need to determine which type of hog operation you had during 2020. As I read down the list, please indicate which ones apply. **Finish only**
19. What was the maximum number of finish hogs and pigs you had at any one time during 3024 in all of this operation's houses? **6200**
20. What was the maximum number of layers you had at any one time during 2020 in all of this operations houses? **40000**
21. How many houses did you have? **4**
22. On average, how many consecutive weeks are the houses full? **39**
23. On average, how many consecutive weeks are the houses full? **10**



24. What was the date that the majority of your houses were last empty? **01/03/2017**
25. Did you make any day-to-day decision for another farm or ranch? **No**
26. Summary data from this survey will be available after July 1 on the internet. This completes the survey! Thank you again. **Enter any notes or comments before entering a 3 below..... 3**

#### **Practice 4: Less than 10K**

1. Who is responding? **Operator**
2. Let me verify the name, address and phone number that I have for this operation. Is this information correct? **Yes**
3. During 2020, did you grow crops, cut hay, grown nursery or floriculture crops or have any whole grains, oilseeds, or hay stored on this operation, or own or raise any livestock or poultry or aquaculture? **Yes**
4. Did you use water (SURFACE or GROUND) for agricultural commodities such as crops, horticulture, aquaculture and livestock in 2020? **Yes**
5. Did you use 10,000 gallons or more of water on any one day for agriculture? **No**
6. Did you make any day-to-day decision for another farm or ranch? **No**
7. Summary data from this survey will be available after July 1 on the internet. This completes the survey! Thank you again. **Enter any notes or comments before entering a 3 below..... 3**