

# 2020 NORTH CAROLINA WATER USE SURVEY

OMB No. 0535-0262  
Approval Expires: 4/30/2021  
Project Code: 997  
Survey ID: 3043



North Carolina  
Department of  
Agriculture and  
Consumer Services

**USDA/NASS - North Carolina**  
P.O. Box 27767  
Raleigh, NC 27611  
Phone: 1-919-707-3333  
Fax: 1-919-856-4139  
Email: [nass-nc@nass.usda.gov](mailto:nass-nc@nass.usda.gov)

Please make corrections to name, address, and ZIP Code, if necessary.

---

North Carolina farmers have the opportunity to document agricultural water use. By law, the North Carolina Department of Agriculture and Consumer Services, Agricultural Statistics Division is **required to collect agricultural water use data biennially**. This survey will provide comprehensive, state-wide facts about agricultural water use so that informed policy decisions can be made and to help protect farmers' access to water in the future. The information you provide will be summarized with other responses.

Your voluntary cooperation on this survey is critical to provide accurate facts about agricultural water use. If you have any questions, please contact Karen Bryan at (800) 437-8451.

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response is voluntary.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0262. The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

---

1. During 2020, did you. . .

- grow crops, cut hay, grow nursery or floriculture crops?

OR

- have any whole grains, oilseeds, or hay stored on this operation?

OR

- own or raise any livestock, poultry, or aquaculture? (Include raised for others.)

109

1  Yes - Continue

3  No - Please sign the bottom of page 4 and return form

2. Did you use water (surface or ground) for agricultural commodities such as crops, horticulture, aquaculture and livestock in 2020? (Exclude recycled water or lagoon irrigation.)

101

1  Yes - Continue

3  No - Please sign the bottom of page 4 and return form

3. Did you use 10,000 gallons or more of water on any one day for agriculture?

Examples may include --

- more than 3,700 finish type hogs, or
- more than 9,000 nursery hogs, or
- more than 4 poultry houses, or
- irrigated at least 1 acre with at least a 1/2 inch of water

102

Yes - Continue

No - Please sign the bottom of page 4 and return form

4. Record the percentage of water you used annually during 2020 for each of the following categories:

	Percent
a. Poultry (turkeys, broilers, layers, pullets, etc.).....	121
b. Hogs.....	122
c. Catfish, Trout or other Aquaculture.....	123
d. Other Livestock (cattle, horses, goats, sheep, etc.).....	124
e. Field Crops (tobacco, corn, sweet potatoes, soybeans, cotton, peanuts, wheat).....	125
f. Fruit/Vegetable Crops (blueberries, strawberries, apples, cucumbers, beans, tomatoes, etc.).....	126
g. Nursery/Greenhouse/Sod (herbs, shrubs, flowers, Christmas trees, nursery plants, ornamentals, sod).....	127
h. Other – Specify: _____	128

Total = 100%

5. What is the daily water withdrawal capacity for your farm\* (the maximum amount your pumps could output in a 24 hour period)?

	Gallons
a. Ground water withdrawal capacity (pumped from wells and ponds supplied by wells).....	107
b. Surface water withdrawal capacity (pumped from lakes, rivers, streams, and ponds supplied by run off or streams).....	108
i. If you indicated that your operation has surface water withdrawal capacity, please indicate the percentage that is withdrawn annually from rivers/streams and the percentage that is withdrawn from lakes/ponds.	
(a) Rivers/Streams.....	Percent 131
(b) Lakes/Ponds.....	132

Total = 100%

\*If you don't know your pumping capacity, please indicate the water source and the pumping capacity of each of your motors. Example: Well - 30 gallons per minute and Pond - 2000 gallons per hour.

MOTOR NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

6. Please select one of the following options to report your monthly water usage:

900

- 1  Report water use in terms of gallons - Complete Table 1
- 2  Report water use in terms of inches per acre - Complete Table 2
- 3  Report water use in terms of both gallons AND inches per acre - Complete Table 1 AND Table 2, but do not report the SAME water usage in more than one table.
- 4  Report water usage by head of livestock/poultry or row spacing/flow rate - Complete the Water Use Estimation Guide, beginning on page 5, if you are unable to complete Table 1 or Table 2. The Water Use Estimation Guide is for operations that do not keep water usage records or are unsure of how much water they have used.

Do not report the SAME water usage in more than one table.

When reporting water used, include water used to feed livestock, cool livestock houses, clean barns, irrigate crops, prevent freeze damage, apply chemicals, or process crops on the farm.

### Table 1: Water Use by Gallons

If your farm withdraws water from multiple counties, please complete Table 1 for each county.  
(An additional copy of Table 1 can be found on page 7.)

Office Use

200

County \_\_\_\_\_

Month 2020	Total Withdrawal for Month (Gallons)	Maximum Day Withdrawal for Month (Gallons)	% Ground Water	% Surface Water	# of Days Ground Water Used	# of Days Surface Water Used
January	201	202	203	204	205	206
February	211	212	213	214	215	216
March	221	222	223	224	225	226
April	231	232	233	234	235	236
May	241	242	243	244	245	246
June	251	252	253	254	255	256
July	261	262	263	264	265	266
August	271	272	273	274	275	276
September	281	282	283	284	285	286
October	291	292	293	294	295	296
November	301	302	303	304	305	306
December	311	312	313	314	315	316

Did your farm withdraw water from another county?

141

- 1  Yes
- 3  No

Do not report the SAME water usage in more than one table.

When reporting water used, include water used to feed livestock, cool livestock houses, clean barns, irrigate crops, prevent freeze damage, apply chemicals, or process crops on the farm.

**Table 2: Water Use by Inches per Acre**

(Irrigators may report water use in this table if it is more convenient.)

If your farm withdraws water from multiple counties, please complete Table 2 for each county.  
(An additional copy of Table 2 can be found on page 8.)

Office Use

400

County \_\_\_\_\_

Month 2020	Avg. # Acres Irrigated per Day (Acres)	Total # Inches Applied for Month (Inches)	Max. # Inches Applied per Day (Inches)	% Ground Water	% Surface Water	# of Days Ground Water Used	# of Days Surface Water Used
January	401	402	403	404	405	406	407
February	411	412	413	414	415	416	417
March	421	422	423	424	425	426	427
April	431	432	433	434	435	436	437
May	441	442	443	444	445	446	447
June	451	452	453	454	455	456	457
July	461	462	463	464	465	466	467
August	471	472	473	474	475	476	477
September	481	482	483	484	485	486	487
October	491	492	493	494	495	496	497
November	501	502	503	504	505	506	507
December	511	512	513	514	515	516	517

Did your farm withdraw water from another county?

142 1  Yes 3  No

Respondent Name:

Date:

9912	9910	MM	DD	YY
	__	__	__	__

Respondent Email:

Respondent Phone:

1095	9911	check if cell phone
	( ____ ) _____	<input type="checkbox"/>

Operation Email (if different from above):

Operation Phone (if different from above):

9937	9936	check if cell phone
	( ____ ) _____	<input type="checkbox"/>

**Water Use Estimation Guide**

USE THIS GUIDE ONLY IF YOU ARE UNABLE TO COMPLETE TABLE 1 OR TABLE 2

HOGS: If you had hogs, please place an X beside the type of operation you operate AND record the maximum number of hogs and pigs you had at one time during 2020 in all of this operation's houses.

Type of Operation		Peak Number of Hogs and Pigs
701	<input type="checkbox"/> Nursery	711 _____
702	<input type="checkbox"/> Finish Only	712 _____
703	<input type="checkbox"/> Farrow to Wean	713 _____
704	<input type="checkbox"/> Farrow to Feeder	714 _____
705	<input type="checkbox"/> Farrow to Finish	715 _____

BROILERS: If you had broilers, please tell us:

- What was the maximum number of broilers you had at one time during 2020 in all of this operation's houses? <sup>720</sup> \_\_\_\_\_
- How many houses did you have? <sup>721</sup> \_\_\_\_\_
- On average, how many consecutive weeks are the houses full? <sup>722</sup> \_\_\_\_\_
- On average, how many consecutive weeks are the houses empty? <sup>723</sup> \_\_\_\_\_
- What was the date that the majority of your houses were last empty? <sup>724</sup>     /    /

LAYERS: If you had layers, please tell us:

- What was the maximum number of layers you had at one time during 2020 in all of this operation's houses? <sup>730</sup> \_\_\_\_\_
- How many houses did you have? <sup>731</sup> \_\_\_\_\_
- On average, how many consecutive weeks are the houses full? <sup>732</sup> \_\_\_\_\_
- On average, how many consecutive weeks are the houses empty? <sup>733</sup> \_\_\_\_\_
- What was the date that the majority of your houses were last empty? <sup>734</sup>     /    /

TURKEYS: If you had turkeys, please tell us:

- What was the maximum number of turkeys you had at one time during 2020 in all of this operation's houses? <sup>740</sup> \_\_\_\_\_
- How many houses did you have? <sup>741</sup> \_\_\_\_\_
- On average, how many consecutive weeks are the houses full? <sup>742</sup> \_\_\_\_\_
- On average, how many consecutive weeks are the houses empty? <sup>743</sup> \_\_\_\_\_
- What was the date that the majority of your houses were last empty? <sup>744</sup>     /    /

**Water Use Estimation Guide - Continued**

USE THIS GUIDE ONLY IF YOU ARE UNABLE TO COMPLETE TABLE 1 OR TABLE 2

CROPS: Please report the following for drip irrigation used during 2020 if you do not know how many inches were applied:

- How many acres <sup>750</sup> \_\_\_\_\_
- How long were the rows <sup>751</sup> \_\_\_\_\_
- How many feet between rows <sup>752</sup> \_\_\_\_\_
- How many inches (spacing) between emitters <sup>753</sup> \_\_\_\_\_
- Flow rate per hour per emitter <sup>754</sup> \_\_\_\_\_
- Number of hours per day that water was applied <sup>755</sup> \_\_\_\_\_
- Complete the table below.

**Table 3: Drip Irrigation**

Office Use

800
-----

County \_\_\_\_\_

Month 2020	% Ground Water	% Surface Water	# of Days Ground Water Used	# of Days Surface Water Used
January	804	805	806	807
February	814	815	816	817
March	824	825	826	827
April	834	835	836	837
May	844	845	846	847
June	854	855	856	857
July	864	865	866	867
August	874	875	876	877
September	884	885	886	887
October	894	895	896	897
November	604	605	606	607
December	614	615	616	617

WATER USE - ADDITIONAL COUNTY

Complete this page only if you need to report water for a county other than the one reported on page 3.

Do not report the SAME water usage in more than one table.

When reporting water used, include water used to feed livestock, cool livestock houses, clean barns, irrigate crops, prevent freeze damage, apply chemicals, or process crops on the farm.

**Table 1: Water Use by Gallons**

If your farm withdraws water from multiple counties, please complete Table 1 for each county.

County \_\_\_\_\_

Office Use
200

Month 2020	Total Withdrawal for Month  (Gallons)	Maximum Day Withdrawal for Month  (Gallons)	% Ground Water	% Surface Water	# of Days Ground Water Used	# of Days Surface Water Used
January	201	202	203	204	205	206
February	211	212	213	214	215	216
March	221	222	223	224	225	226
April	231	232	233	234	235	236
May	241	242	243	244	245	246
June	251	252	253	254	255	256
July	261	262	263	264	265	266
August	271	272	273	274	275	276
September	281	282	283	284	285	286
October	291	292	293	294	295	296
November	301	302	303	304	305	306
December	311	312	313	314	315	316

WATER USE - ADDITIONAL COUNTY

Complete this page only if you need to report water for a county other than the one reported on page 4.

Do not report the SAME water usage in more than one table.

When reporting water used, include water used to feed livestock, cool livestock houses, clean barns, irrigate crops, prevent freeze damage, apply chemicals, or process crops on the farm.

**Table 2: Water Use by Inches per Acre**

(Irrigators may report water use in this table if it is more convenient.)

If your farm withdraws water from multiple counties, please complete Table 2 for each county.

County \_\_\_\_\_ Office Use  
400

Month 2020	Avg. # Acres Irrigated per Day (Acres)	Total # Inches Applied for Month (Inches)	Max. # Inches Applied per Day (Inches)	% Ground Water	% Surface Water	# of Days Ground Water Used	# of Days Surface Water Used
January	401	402	403	404	405	406	407
February	411	412	413	414	415	416	417
March	421	422	423	424	425	426	427
April	431	432	433	434	435	436	437
May	441	442	443	444	445	446	447
June	451	452	453	454	455	456	457
July	461	462	463	464	465	466	467
August	471	472	473	474	475	476	477
September	481	482	483	484	485	486	487
October	491	492	493	494	495	496	497
November	501	502	503	504	505	506	507
December	511	512	513	514	515	516	517

This completes the survey. Thank you for your help.

OFFICE USE ONLY													
Response		Respondent		Mode		Enum.	Eval.	Change	R. Unit	Office Use for POID			
1-Comp	9901	1-Op/Mgr	9902	1-PASI (Mail)	9903	9998	9900	9985	9921	9989			
2-R		2-Sp		2-PATI (Tel)						-----			
3-Inac		3-Acct/Bkpr		3-PAPI (Face-to-Face)						Optional Use			
4-Office Hold		4-Partner		6-Email						9907	9908	9906	9916
5-R - Est		9-Oth		7-Fax									
6-Inac - Est				19-Other									
7-Off Hold - Est													
S/E Name													